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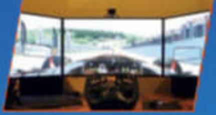

DAWN OF WAY III REVIEWED
THE FUTURE OF 40K GAMING OR A GRIM SEQUEL?

AUSTRALIA'S #1 PC GAMING MAG

PC PowerPlay

SINCE 1996

THE SEXY BRUTALE

GROUNDHOG DAY MEETS
10 LITTLE INDIANS

DIABLO III

UP CLOSE AND PERSONAL
WITH THE NECROMANCER

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RIME

LINK DOESN'T HAVE THE MONOPOLY ON ADVENTURE

AMD
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>PCPP #262

ON THE COVER

RIME

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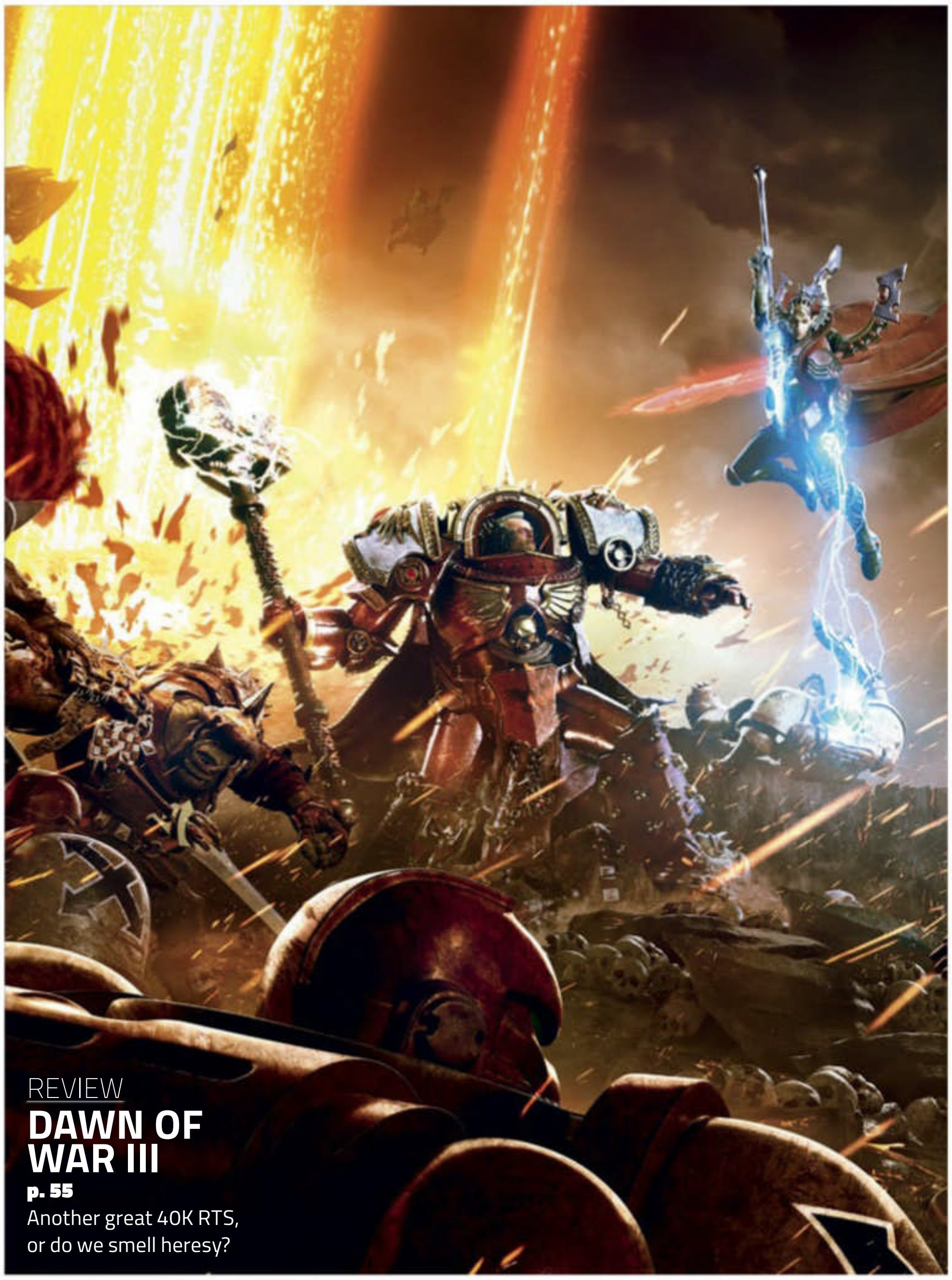
The long in development exploration and puzzle game finally makes its way to PC



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DAWN OF WAR III

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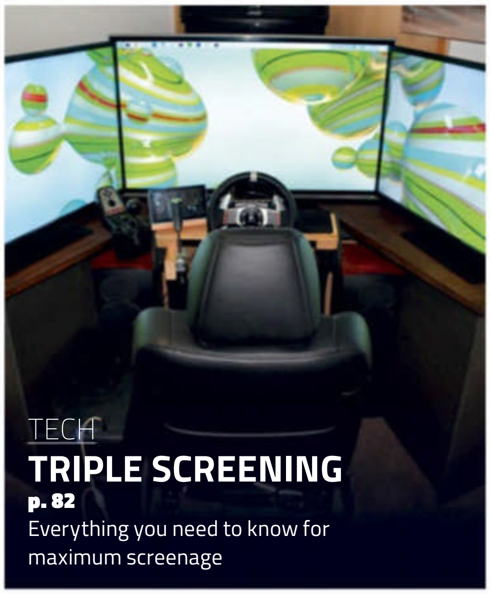
Another great 40K RTS, or do we smell heresy?



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TRIPLE SCREENING

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Everything you need to know for maximum screenage

TECH

GIGABYTE P57v7

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Gigabyte refines its gaming laptop mainstay

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ALL QUIET ON THE OFFICE FRONT

2017 is progressing at a rather incredible clip. I feels like the year has only just started but already I'm fielding meeting requests for Computex and E3. Where has the time gone? It has so far been a very busy year as far as both technology and game releases go, with AMD releasing the Ryzen and the 500 series of budget graphics cards, and a number of AAA developers either releasing their game late to avoid the Christmas glut or early to miss the April/May release season, and that shows no signs of slowing down. The Vega GPU, AMDs high end graphics cards have been given a Q2 release window, so we can expect the GPU war to heat up again by the end of June. The first affordable HDR and OLED monitors will be hitting the market soon as well, and that should mean big things for the world of PC gaming. At this rate I'll blink and it will already be Christmas and time for the next Tech Handbook to go out.

On the games front, the AAA floodgates are now well and truly open. From here on out every month will see multiple big budget titles being released on PC. That said, the indie scene is still the most exciting thing going in terms of creative game development. This month I was lucky enough to play The Sexy Brutale. It's one of the best games I've played in ages. Nearly faultless in fact, with clever and engrossing mechanical design and a charmingly odd aesthetic. If you haven't had a chance to play it, spend the money and get yourself a copy. It's more than worth the money. The fact that one of the development studios that created The Sexy Brutale is responsible for our cover game, Rime, makes me all the more excited to get my hands on that lovely looking action/adventure game.

The office is very quiet at the moment. While I type this, Sean, Cam, Ben, Bennett and David are setting up for Upgrade Australia 5.0 in Melbourne. I would have loved to have been there but needs must and deadlines are a harsh mistress.

Daniel Wilks
'80s music trivia wiz
@drwilkenstein

QUOTES OF THE MONTH

"What do you think I do when you go to bed? Watch Golden Girls reruns?"

"Here, you can have the James Donkey 007"

"10/10, would physics again"

PC PowerPlay

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Inbox

If nothing else, DoW III brings the pretty back to RTS

PC PowerPlay
THE SURGE
MASS EFFECT
NIER AUTOMATA
READER'S GOTY

LETTER OF THE MONTH WINS!

Write in to PCPP with your rants, considered opinions, and endless run-on sentences of pure awesome. The address is letters@pcpowerplay.com.au. Each letter read by hand! This month Tal scores himself a copy of Dawn of War III thanks to the good people at Sega.

DAWN OF WAR III
SEGA

REAL TIME GRAPHICS

Dear RTS, where did the graphics go? I recently got my hands on Grey Goo and the more recent Ashes of the Singularity and was shocked to find that C&C3, nearly 10 years old, looks just as good if not better. The pretty glowing lights of Ashes notwithstanding, C&C3's textures were crisper, the models were just as good, and effects intense and visceral. Other areas have graphically moved ahead in leaps and bounds: AC2 could never visually pass as a 2016 game (particularly after seeing AC: Syndicate), and neither could the original Star Wars Battlefront games. Yes, Warhammer: Total War is gorgeous, but this seems to be the exception. After reading in PCPP 258 that Dawn of War III might limit the zoom to let them get away with low detail models, I ask again: RTS, where did the graphics go?

Tal Coward

Hi Tal - when it comes to RTS, the new paradigm seems to be scale, so while they might not look as crisp as some of the older games, they are impressive because of the number of units they can show in full detail, with attendant physics and the like. You're right about Total War: Warhammer though - that game is stunning.

G2ABCS

In PCPP 260 there was a letter concerning reseller services such as G2A. I'm not sure about the others but it would be good if you could use your contacts within the gaming industry and talk to devs because the chatter I hear from places like reddit and such is not good and it would be good to get clear and concise information on this.

Person A Steals CC from Person B then buys game codes and sells them to G2A at discounted price. G2A facilitates the sale of game codes to Person C and makes money of the sale. Person B reports stolen CC to Bank and gets a refund. Bank back charges owner of game codes, normally the devs if an indie title and fines them extra.

Person A (probably connected to crime) makes money – Happy.

Person B is inconvenienced but gets their money back – So So but Happy.

Person C gets a cheap game but runs the risk of having that code cancelled and helps support underground crime – Happy enough, living in ignorance.

Bank gets its money back and some for the extra charges – Banks never lose.

Game Dev not only doesn't make money but loses money – Not happy.

And I've heard in some case devs saying they would rather people pirate their game then buy it from G2A.

If this is in fact the case, the Australian PC gaming public needs to be educated on this as it can only hurts all of us in the future.

Well anyway I just felt the need to share and as always look forward to the next issue arriving in the mail.

Jeff Constantine

Hi Jeff - It will be interesting to see if and what the final fallout will be with the G2A, Gearbox debacle. There were threats of litigation after the break. If a court case does eventuate it could mean we finally get some clarity when it comes to key resellers.

A WINNER IS YOU!
Congratulations to:

PCPP 259 subs winners
Greg Illingworth, Lin Thompson, Andrew Slocombe, Chris Fitzsimons, Simon Caon, Brendan Fysh, James Fanning, Eric Green, Stephen Lacerenza, Bruce Knox, Kalysa Ackerman

PCPP 260 subs winners
Kath Zyzniewski, Paul Krause, Colin Rootes, James Fraser, Paul Connell, Simon Klostermann, Dariusz Rosiak

PCPP RGotY Winner
Ben Farley

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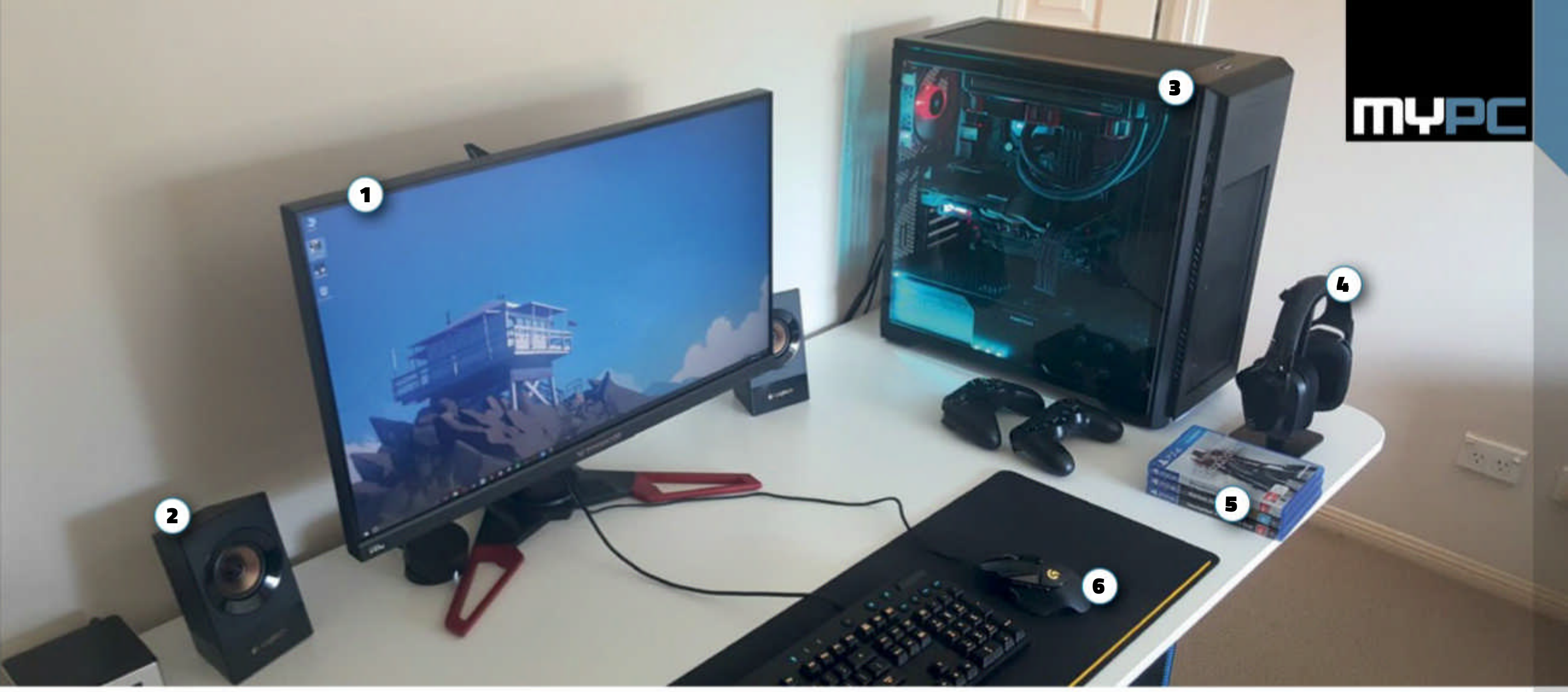
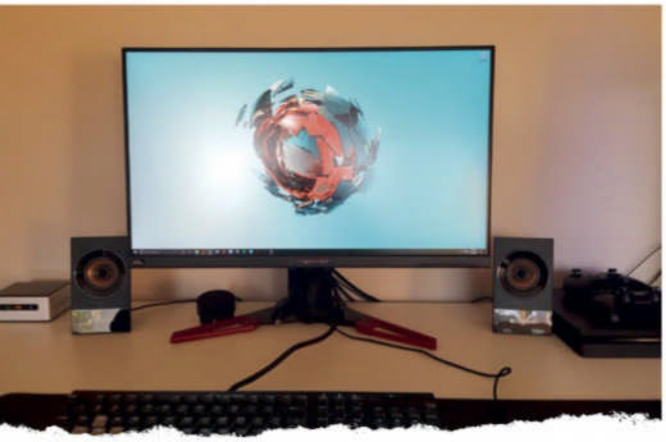




JARRAD, 32, BRISBANE

This month's MY PC brought to you by CREATIVE

I've only recently gotten back into PC gaming last year, when I bought a prebuilt and over the course of that year I've ended up tearing that apart and basically building a new computer from scratch. The addiction is real, but I think I've finally gotten to a place where I'm content with my set up.

MOST IMPRESSIVE ELEMENTS:

- Acer Predator 27" 1440p 144hz Monitor
- Phanteks Enthoo Pro M Tempered glass case
- CableMod black and red sleeved cables
- Corsair Magnetic Pro 120m Red Led Fans

WHAT MAKES MY PC SO SPECIAL?

The monitor punching out 145hz (165hz when it's overclocked). Running games at 144fps makes so much difference, the smoothness is unbelievable. I'm running an MSI 1070 which does a pretty good job of keeping those frames up there on pretty high settings. I have a PS4 and Xbox One and going back to them at 30fps is almost impossible.

MY DREAM UPGRADE would be an EVGA FTW 1080 Hybrid; living in QLD, the temps get pretty high and a watercooled GPU would fix that problem and be a nice little boost for my graphics settings.

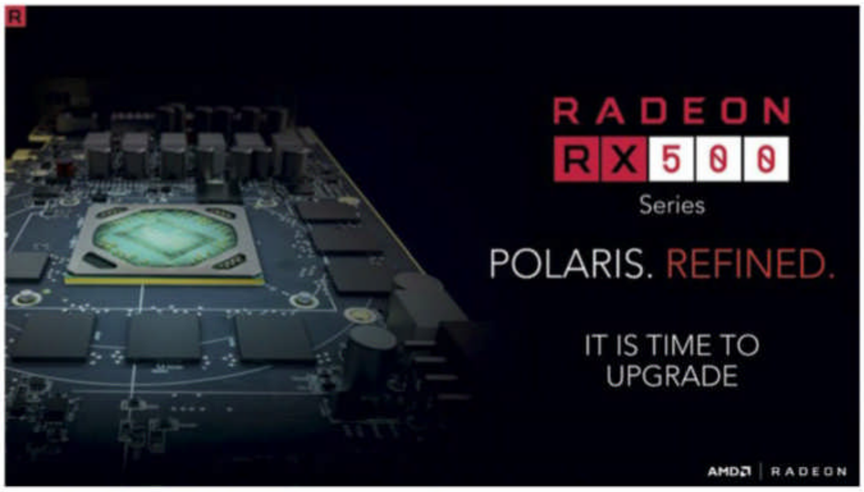
1. Our favourite monitor of last year and one of the best on the market. Nice choice there.
2. Decent speakers, but do they have RGBs and USB 24-bit playback?
3. Elegant case with a nice, clean build
4. We're still not entirely sold on wireless headsets.
5. Those don't look like PC games! Traitor!
6. You're either a fan of Logitech or someone was having a sale.

JARRAD WINS!

Thanks to the good people at Creative, Jarrad scores himself a set of Kratos S5 RGB 2.1 speakers. Enjoy!

BLASTERX
winner!

WANT FREE STUFF? Send your MyPC entry today to *mypc@pcpowerplay.com.au*. Include the four most impressive elements of its hardware, your last upgrade, your dream upgrade, your favourite feature and what you think makes your PC special. Make sure to include your name, age and location. And last but not least, attach a 5MP or bigger image of your PC! No camera phone shots, and make sure it's in focus!



AMD'S LUKEWARM RX 500 SERIES GRAPHICS CARDS

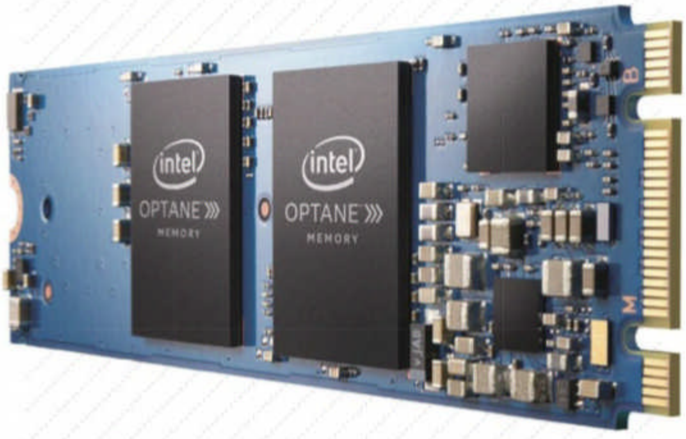
AMD have released RX 570 and RX 580 graphics cards. They've still got Polaris 10 based GPUs but use a tweaked 14nm manufacturing process that AMD calls "Latest Generation FinFET 14". The RX 500 series cards are mildly overclocked for a minor bump in performance and use a little more power or a little less power depending on what you're doing (e.g. about 10W on average in gaming, but 30W lower in video playback). They're also a few bucks cheaper than the RX 470 and RX 480. Other than though, the RX 500 series cards practically identical to their RX 400 series predecessors. If you've already got an RX 470 or RX 480 though, don't bother upgrading, there's not much to see here. What you're waiting for is Vega - AMD's upcoming flagship GPU, which should be out and about in a few months from now.

CREATORS UPDATE FOR WINDOWS 10 IS NOW LIVE

Microsoft has pushed the Creators Update to Windows 10 out to Windows Update for the public. Fresh features for PC gamers are a large part of this update, with the Game Bar shortcut (Windows+G) hosting all the new stuff. In the Game Bar, you can toggle Game DVR, Broadcasting, and Game Mode. Game DVR and Broadcasting leverage Microsoft's acquisition of Beam, a game video streaming service like Twitch. With just one button you can broadcast to Beam or simply record a video file locally. Game Mode dedicates more system resources to games instead of background tasks. It can shove non-gaming stuff to other CPU cores and dedicate more GPU cycles to the game being played, rather than the operating system. The Creators Update also contains improvements to Microsoft Edge's battery life on laptops, new Cortana functionality, "night light" mode to lower the amount of blue light emitted from your PC and dozens of other refinements.

INTEL'S FANCY OPTANE SSD FINALLY ARRIVES, BUT IN SMALL CAPACITIES

Intel's long awaited 3D XPoint non-volatile memory technology, Optane is finally out for consumers to sample. Optane is a new type of flash memory that's ideal for SSDs and shines in heavy workload scenarios. Due to Optane's uniqueness, it's also quite expensive, so to whet the appetite for consumers (there's much more expensive enterprise versions with more storage) these relatively small 16GB and 32GB drives are designed to be used as a cache on Intel's latest 200-series chipsets. They just pop into an M.2 PCIe slot and using Intel's Rapid Storage Technology software, frequently used data is automatically cached on the Optane drive instead of your slow HDD. In early benchmarks, it appears that when the Optane drive is paired with an SSD, the gains are minimal, but when used with a HDD, overall performance can be almost as good as using an SSD alone, but with the cost and size advantage of a HDD. Optane drives are out now and the 16GB drive is $79 and the 32GB version is $129.



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TITAN X
nVIDIA

THE TITAN XP IS NVIDIA'S NEW FLAGSHIP CONSUMER GRAPHICS CARD

Nvidia has done the opposite of AMD, releasing the Titan Xp, a beefed-up version of the GeForce GTX 1080 Ti it released last month. The card features a whopping 12GB GDDR5X of VRAM with a throughput of 11.4 gigabits per second. The GP102 graphics processor has 3,840 active CUDA cores running at a boost clock of 1,582 MHz. Nvidia claim it will pump out 12 trillion floating-point operations per second. The Titan Xp supports two-way SLI, for face melting FPS, ideal for high quality VR experiences. You'll want a strong PSU to go with it, as each card uses 250W of power. No Australian date or pricing yet, but it costs US$1200 - a significant amount more than the GTX 1080 Ti it supplants as Nvidia's flagship consumer graphics card.

DELL'S UP3017Q 30" 4K OLED MONITOR LOOKS AMAZING

When you win the lottery, remember the Dell UP3017Q. It's a 30", 4K, OLED display that's gorgeous, but costs US$3,499. But man, it is good. Thanks to the OLED technology, your eyes are treated to a 1,000,000:1 contrast ratio and a brilliant 1.07 billion colours across the entire 3840 x 2160 pixels. Colour coverage is solid too, with the UP3017Q cleanly displaying 100% AdobeRGB, 100% sRGB, 100% Rec. 709, 97.5% DCI-P3 and 85.8% Rec. 2020. Gamers will love it too, as response time is a microscopic 0.1 milliseconds, again, thanks to the way OLED differs from LCD technology. No G-Sync or FreeSync though. Hook it up to your computer via USB Type-C, HDMI 2.0 or miniDP 1.2. If you connect your USB Type-C powered laptop to the UP3017Q, it'll provide up to 100W of charging power as well as transmit an image, for a single cable connection. No Australian ETA, but you probably can't afford it anyways.

ASUS VIVOPC X BRINGS PC LEVEL GAMING TO YOUR LIVING ROOM

If you're the kind of gamer who might want console to hook up to their TV, but also wants to be a member of the PC master race, ASUS has you covered with the VivoPC X Console. It's a horizontal mini PC with the guts of a modern gaming laptop inside, making it perfect for gamers who would like to have a gaming machine in their living rooms, but don't want a big honking tower ruining a public part of their home. The VivoPC X is decently kitted out for a 1080p gamer, with an Intel Core i5-7300HQ CPU, NVIDIA GeForce GTX 1060 GPU, a single DDR4 RAM slot (8GB by default), 802.11ac Wi-Fi, Gigabit Ethernet, 2x HDMI 2.0b ports, a couple of USB ports and oddly, a 1TB 2.5" 5400RPM SATA HDD - but that can be augmented with an M.2 SSD. No Australian ETA and retails for US$799.

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* Maximum performance values for the 960 PRO. Results may vary based on the user environment.

BURNING MAN

Rooster Teeth founder confirmed as PAX Aus keynote speaker

PAX Australia, scheduled for October 27-29 at the Melbourne Convention and Exhibition Centre has found its keynote speaker in the form of Rooster Teeth founder and all-round Internet famous guy, Burnie Burns. Best known for his groundbreaking machinima series Red vs. Blue: The Blood Gulch Chronicles, Burns is an acclaimed writer, actor and content producer who has garnered multiple award nominations from The Webby Awards and International Academy of Web Television for his works.

Burns should make for an interesting keynote speaker as he isn't directly related to games development, or, as in the case of last year's keynote speaker, Major Nelson, being a brand ambassador. Given that Rooster Teeth has also hosted a popular and successful expo of their own for the last few years, Burns' presence could be considered a little odd, but the digitaal star should be a popular speaker at this year's PAX.

HALF-LIFE RELEASED IN GERMANY

Seriously, Half-Life has been released in Germany!

Up until recently the only legally available version of one of the classic PC games, Half-Life was heavily censored to fit with German law. Barnacles vomited screws when killed, enemy humans were changed into robots, and scientists and allies the player tried to kill would merely sit down, shake their heads in disbelief (much like we are doing) and fade away into nothing. Now German players can enjoy the low poly - visceral combat of a nearly 20-year-old game.

MILLIONS LOST TO BLIZZARD

Hearthstone and Overwatch reach player milestones

According to Blizzard's latest data, their highly popular free to play CCG Hearthstone has just hit 70 million players. By any account that's a huge number, and to thank players, the developer is offering three free Journey to Un'Goro card packs to anyone who logs in until the end of May. This award, as good as it sounds may not be as innocent as it sounds. In early March, Blizzard announced that the price of card packs would increase in the UK, EU and a number of Middle Eastern and African countries due to fluctuations in "local and regional market conditions", so the free packs could possibly be seen as a mollifying gesture from the developer.

Around the same time, Blizzard also announced that their massively popular character shooter had surpassed 30 million registered players. Whilst not all of these players may be active, the sheer number of players is extremely impressive. The growth of Overwatch has been nothing if not dynamic, with an average of 2.2 million new players registering per month since last August. At this rate, everyone in the world will be playing Overwatch in around 265 years.

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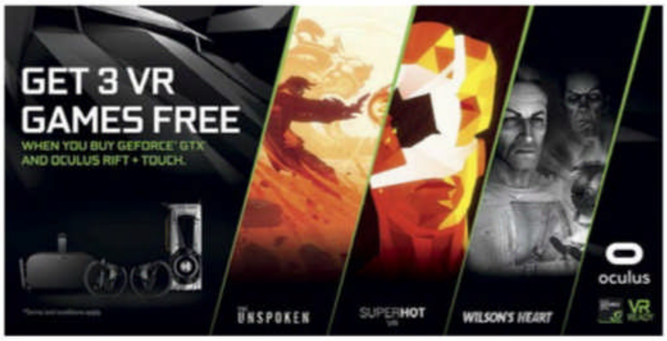


TEAM GREEN GO VIRTUAL

Nvidia and Oculus team up for a bundle

Nvidia and Oculus have launched a new deal, offering three free VR games to anyone purchasing a GeForce GTX graphics card and an Oculus Touch bundle. To be eligible for the offer, customers will need to buy an Oculus Rift with Touch controllers, along with an Nvidia GeForce GTX 1060, 1070, 1080 or 1080 Ti. This also includes pre-built systems that use these components. The free games on offer are fairly tempting; first up is Superhot VR, a time-bending first-person shooter where time only progresses when you move, allowing you to carefully choreograph your movements and attacks. Next up is The Unspoken, a game by legendary developer Insomniac Games which involves "an urban magic fight club". Use the Oculus Touch controllers to fling fireballs at foes, summon mystical allies, and more. Lastly, there's point-and-click adventure Wilson's Heart. This stylish noir tale features the vocal talents of luminaries such as Rosario Dawson, Alfred Molina and Michael B. Jordan, tasking the player with solving an unsettling mystery in an abandoned hospital.

MONSTER LAPTOP SPOTTED IN SYDNEY

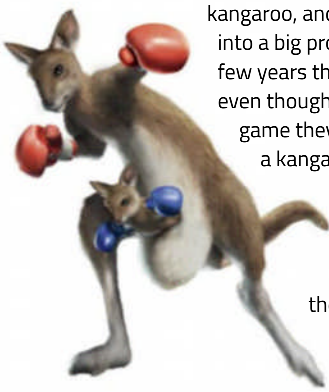
Acer bring the massive Predator 21 X to IEM

The huge, heavy and very powerful curved screen laptop that Acer has been showing off overseas for some time has finally made it to Australia. The company showed the behemoth at the Sydney leg of Intel Extreme Masters and should be available to those rich and crazy enough to want one some time soon. The "laptop" weighs 8.8Kg, sports a 21", 120Hz, 2000R curved 2560x1080 G-Sync screen, four speakers and two subwoofers, a full sized mechanical keyboard with a reversible numpad that transforms into a touch pad, dual GTX 1080s, two power supplies and all the cooling in the world to stop it from melting. If this sounds appealing to you, the likely $15k price tag may put you off.

SAY NO TO BOXING KANGAROOS

Roger Jr a victim of YouTube!

Roger Jr, the fighting kangaroo from Tekken, a character that people didn't really like and wasn't much played has not made it into the roster of the upcoming Tekken 7. In an interview with VG24/7, series producer Katsuhiro Harada explained, "There was a video of a man's dog being head locked by a kangaroo, and he punched it in the face. It turned into a big problem... It seems that in the last few years there's a lot more animal activists – even though they probably wouldn't play our game they would still hear about that, about a kangaroo in our game being punched, and would complain about it". Harada went on to explain that the fighting bear, Kuma, and the fighting panda, Panda were still in the game because they were obviously stronger than humans. It's political correctness gone mad I tells ya!



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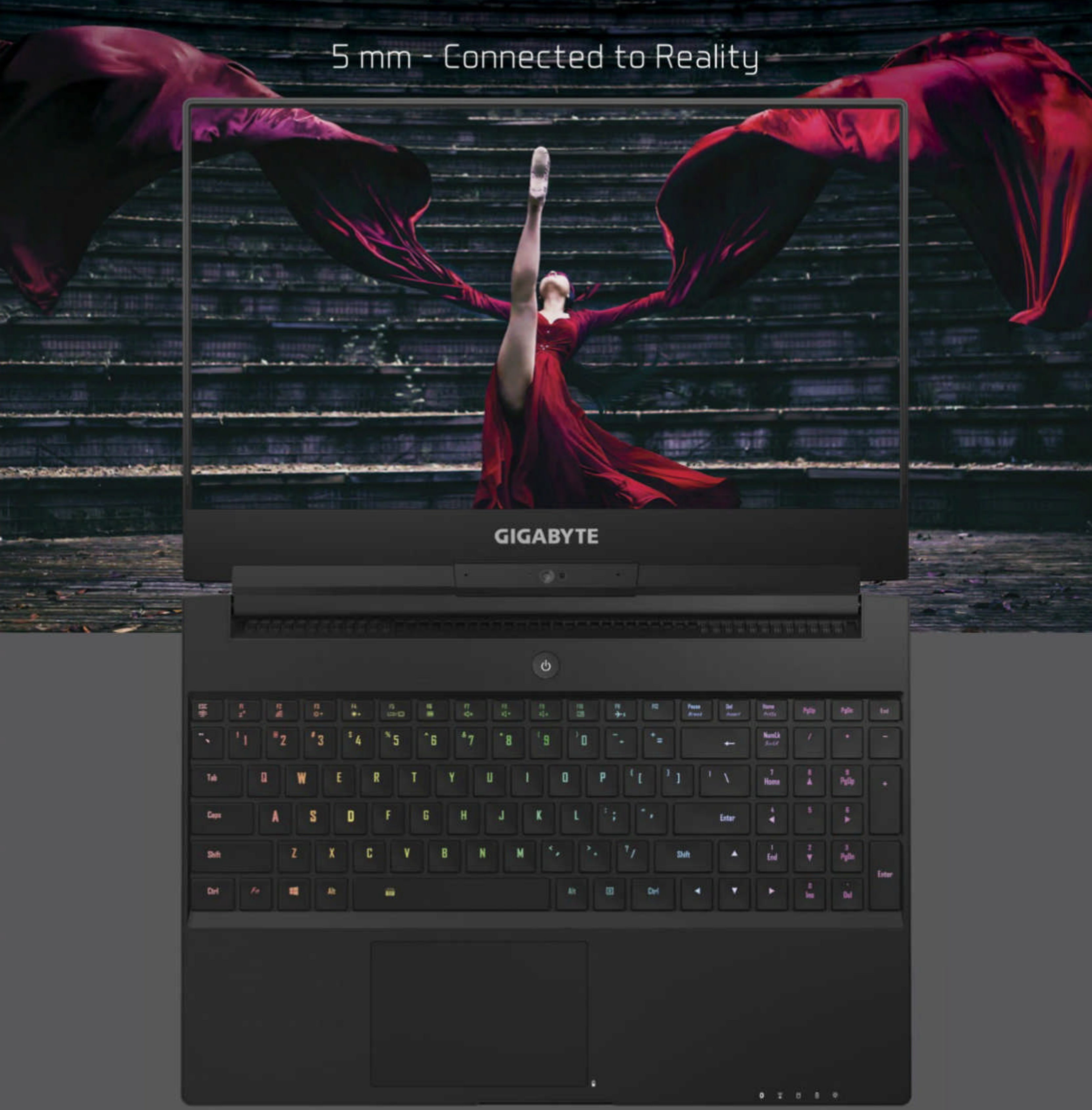
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Join In Win at Upgrade 5.0 as it launches the beautiful and innovative new signature case tòu 2.0, along with the new range RGB power supplies, and the new RGB AURORA fans. tòu 2.0 is a full tower PC case with an integrated 1065W PSU. Its 5mm geometric tempered glass panels cover most of the exterior with a perfect mirror finish. As the interior LED lights dim and brighten, the glass become transparent showing off the interior components. The light brightness is controlled through a unique touch slider switch built into the top of the front panel.

tòu 2.0 ▪ RRP: **$2699**

The new 301 has similar design to the classic 303, but with micro-ATX dimensions. The In Win 301 comes with a tool-less tempered glass side panel and top-mounted PSU. 301 black features a red LED-backlit front I/O. There will also be a white variant that will keep the classic blue I/O. Despite being compact, the 301 has great capacity for water-cooling.

301 ▪ RRP: **$99**

AURORA is In Win's new fan product line. The special IC chip embedded within each LED light allows AURORA fans to create an array of colours simultaneously with up to 22 different kind of RGB lighting effects! The daisy-chained cable design provides tidier cable management. The AURORA fan package includes three RGB fans, two LED strips, one LED module, and a remote control.

AURORA fan ▪ RRP: **$139**

The Premium Series is In Win's range of new fully-modular power supplies with 80+ Gold certification and a beautiful RGB lighting effect. The Premium Series includes three models: PL 650W, PL 750W and PL 850W. Premium components are used in the PSU construction including Japanese aluminium electrolytic capacitors (with a 105 °C rating) for stability and ultra-long lifespan. Further safety/reliability is provided by protections such as OCP, OVP, UVP, SCP, OTP and OPP.

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PLE AND THE PC COMMUNITY

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You probably know PLE Computers as an Australia-wide network of stores selling a huge range of PC gear, all backed up by a comprehensive website offering just about anything you will need for your PC, with easy online shopping and fast, trouble-free delivery.

But there's more to PLE. The people behind the scenes love to get involved with Aussie gamers, it's their passion, and it's backed up by a long history of supporting the Australian gaming scene.

PLE support the community in many ways. They're there at the frontlines at many events and tournaments, backing Aussie gamers with prizes and gear. In just the last year PLE provided over $50,000 worth or prizes across the country at various gaming events, big and small. As PLE's Anthony Hollingsworth explains. "At PLE we are passionate about community engagement. When we sponsor an event we're not the type to just write a cheque and move on, we like to get our hands dirty and get involved with the event so we can provide a valued contribution. In addition to high profile events like PAX AUS, we provide support to and attend numerous local LAN gaming events. That is what separates us from the pack, actually being involved."

GETTING IN AMONGST IT ALL

Here are just a few of the events PLE were part of recently:

FLAKTESTGAMING NATIONAL INTERSCHOOL ESPORTS LEAGUE

https://www.flaktest.com/

A strong alliance between the FlaktestGaming organisers and PLE Computers has resulted in this fantastic event taking off big time. The big grand final will be held in Perth, with eastern state teams flown in to participate.

Anthony Hollingsworth explains PLE's desire to be involved. "We are extremely proud of the improvements that Flaktest have been able to make to the Australian gaming community, school environments and lives of the students and families involved. As a very community minded company, when Brett first approached us to get involved with Interschool eSports we immediately connected with the idea and the opportunity for schools to play an important positive role in changing the community opinion of gamers"

RFLAN

www.rflan.org

Held in Perth, RFLan attracted a massive 900 gamers! It's Australia's largest LAN party and is held every school holidays at Curtin University.

LANSLIDE

https://www.lanslide.com.au/

This Melbourne event brought 300 gamers together at the Aspendale Gardens Community Centre, as it does every school holidays. Lanslide is widely known as Victoria's best bring-your-own-PC LAN party and of course PLE was there.

These are just a few ways PLE supports the community, in addition PLE supports numerous smaller LAN parties, regional events and computer groups, including:

- Relief LAN
- Lan of the Damned
- University of Wollongong VGA Fest
- GGF Lan
- Melbourne PC User Group
- Curtin University ComSSA Student group
- Australian PC Gaming and Enthusiasts group

And of course, Upgrade Australia! So come along and meet the people at PLE, see the latest gear and have some fun.

AMD RYZEN 7

AMD Ryzen at
Upgrade Australia

Even Ryzen coolers look fantastic

It truly is a new era in the world of performance CPUs. Thanks to four long years of hard work, research and innovation, AMD's brand new Ryzen 7 series of processors have delivered high-end performance at an unprecedented price. Power users have never had it so good, with the cost of a top-end machine halving with the release of this single product.

So just what is Ryzen 7? This all-new product from AMD has been built from the ground up over the last four years, based on a powerful new CPU core design called Zen. Today's CPUs aren't really just a single CPU – they each contain between two and ten CPU cores. Each core is basically an individual CPU, but they share specialised memory pools known as caches. The flagship model in AMD's Ryzen 7 series is the 1800X, an eight-cored beast that retails for half of the price of Intel's nearest competitor. Each of the CPU cores is based on the brand-new Zen architecture, and AMD pulled off a minor miracle with the design of this CPU core.

AMD's goal was to deliver a performance improvement of 40% for the Zen core when compared to its previous design. Instead Zen ended up delivering a whopping 52% improvement, a far cry from the 7% or so PC users have been accustomed to with each year's minor CPU upgrades. Not only did AMD manage to squeeze eight of these cores into the new 1800X, but it also implemented a new technology that effectively allows each core to do the work of two cores. Known as SMT, or Simultaneous MultiThreading, this technology allows each CPU core to handle two threads of instructions in optimal situations, effectively doubling the performance of each core.

Not only was AMD able to offer so many cores, each equipped with SMT, it was able to do so with each core operating at a high speed. In the flagship model, the Ryzen 7 1800X, the top Boost speed is a whopping 4GHz. Like all Ryzen CPUs it supports Extended Frequency Range, or XFR for short. It's basically another level of Boost, allowing this processor to hit speeds of up to 4.1GHz.

All of AMD's new Ryzen products come fully multiplier unlocked, which makes overclocking them as simple as changing a single setting in the BIOS or from the new Ryzen Master Utility software, which can be run from the Windows desktop. Not only does this software allow easy overclocking, it also shows exactly how much work the Ryzen chip is doing. This is thanks to the SenseMI technology built into the new Ryzen chips. Over 1000 individual sensors constantly monitor the performance, temperature and voltage of each part of the CPU, allowing them to continually adjust the chip to ensure it's operating at maximum efficiency. The result is a CPU that is not only powerful, but also very power efficient, with a maximum operating TDP of just 95W. No longer will power-users have to rely upon extremely expensive cooling solutions for their workstations to remain whisper-quiet, as Ryzen delivers performance while keeping its cool.

Ryzen shines most in programs that make use of multi-threading, which basically means the software can utilise more cores. From video editing, to CAD, to gaming while streaming, more cores equals better performance, but AMD is continually working with more software developers to enable better access to multicored CPUs. For example, it recently worked with the developer of the game "Ashes of the Singularity" to deliver a huge 30% performance increase with a single patch, and we can expect to see more of these performance boosts in future.

Ryzen also brings a new series of motherboards with it, all of which support the latest technologies, from NVMe SSDs to USB 3.1 Type C, and all at a cost half of the competition. If you're looking for a truly high-end workhorse, look no further – AMD has delivered pedigree performance at mainstream affordability.

With Ryzen comes new AM4 motherboards

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GALAX – GALAX GTX 1080 EXOC SNIPER WHITE EDITION

With a core clock speed higher than that of the GTX 1080 Founder's Edition you might expect the Galax GTX 1080 EXOC Sniper White Edition to run hot and loud, but the white chassis is a keen visual indicator of how the card runs; cool and quiet. Thanks to efficient fan design and the fact that the fans only become active when the GPU hits 45 degree, the card runs quietly through normal usage and only slightly louder under full load. Even at full load the GPU temperature should not exceed 66 degrees, making it a prime candidate for further overclocking.

GALAX
GEFORCE GTX 1080
EXOC
VR READY

ANTEC – ANTEC CUBE RAZER EDITION

Case, cooling and power supply manufacturer, Antec has joined forces with peripheral and laptop designer, Razer to design a mini-ITX case that doesn't skimp on features. At just 365x250x460mm, the Cube stands around two thirds as high as a standard gaming case, and about three quarters as deep, but even so, there is plenty of room inside for a powerful PC. Due to a spacious interior design, the Cube can fit a 350mm graphics card while still having room for ample SSD and HDD bays.

Both side panels are attached with tool-less mechanisms for easy access and building. Designed for performance, the Cube can mount a 240mm water-cooling radiator at the front and a second 140mm radiator at the rear. Compromising on size doesn't mean you have to compromise on performance.

FRACTAL DESIGN – DEFINE C WINDOW VERSION

Fractal Design is known for making beautifully constructed, elegant PC cases, and the Define C Windowed compact ATX mid-tower case is absolutely no exception. Eschewing the flashy lights and aggressive accents common in many of the premium cases currently on the market, the Define C is instead a simple, stylish black tower made of dense, sound dampening material ensuring that the case is as quiet as it is good looking.

Despite being smaller than the usual ATX case, the Define C has a spacious interior thanks to a separate compartment for the PSU and cable management. Not only does this allow for easy access for building, it also means that airflow is unobstructed for efficient cooling.

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The IG-Touch panel is a cutting-edge technology solution, designed for today's high-impact and fast moving world. A remarkably versatile solution that gives businesses the ability to enhance communication and collaboration driving maximum efficiency and productivity, as well as delivering the "wow" factor to clients and staff.

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The panel can be used without a PC connected to deliver an out of the box digital whiteboard experience, or functionality can be enhanced by connecting an external PC or MAC, or by installation of the wire-free OPS modular built-in PC, which provides a truly integrated solution (optional).

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The Star Killer

After six years and 150 million dollars, the success of Star Citizen defies explanation. It's almost supernatural...

One day a gamer with vivid memories of playing Wing Commander back in the 1980s entered an antique store and picked up a cursed monkey paw. Whilst inspecting the curio, he absent-mindedly said to himself: "Man, those old Chris Roberts space shooters were great, but I wish he had unlimited time and money to make a game that could truly live up to his vision." With a sinister creak, one of the fingers curled. The shop-keeper rang up the purchase, and to the aging nerd spoke two ominous words: "No refunds."

This tale may seem fanciful, dear reader, but it is as plausible an explanation as any for current events.

The Kickstarter boom of 2011 made it possible for charismatic developers to reach out directly to their fans, no matter how bad they were at managing projects. Of those games since released, some were late, like Wasteland 2. Some were disappointments, like Mighty No. 009. But there have been none like Star Citizen. This game alone has seen its scope increase to elephantine excess, and its fans have served as the perfect enablers to Chris Roberts's ambitions. As of this writing there are over 1.75 million 'Star Citizens,' who have donated over $US 147 million.

In comparison, Mass Effect: Andromeda only cost $US 40 million. It spent almost as much time in development, and delivered a rather spotty gaming experience at launch. But at least it did launch; EA/BioWare eventually got it out the door. Star Citizen is something else entirely.

It's been five years now since the gamer in our opening story got his wish, and a few of the hairs on his temples have turned grey. Many Star Citizen backers, himself included, are getting a little worried about this burgeoning enterprise. Picking up the monkey paw from his mantle, he asks for another boon: "I sure wish Chris Roberts would let his backers know exactly what he was spending their money on." And with a deathly creak, the second finger curled.

On April 14 the Star Citizen team published a video to their official YouTube channel, 'Building a Schedule for a Universe.' For 20-odd minutes global head of production Erin Roberts and his pensive minions explained how Roberts Space Industries has become such a colossal, Byzantine organisation that even something as seemingly straightforward as implementing ship cargo is an engineering challenge on a par with the Apollo Program.

> implementing ship cargo is an engineering challenge on a par with the Apollo Program

With such a sprawling, multi-disciplinary organisation spread out over several nations and time zones, it would seem that delays are inevitable. Frankfurt-based producer Lena Brenk was sanguine about their setbacks: "It's nobody's fault... We just need to figure out how to move forward." When touching on Star Citizen's ever-increasing scope, she almost laughed out loud: "The schedule is never done. It's always changing. Always being amended."

While there is still no ETA for a minimum viable product, the Star Citizen meta-game is already tremendously entertaining.

Consider the referral program, where Star Citizens can get extra in-game goodies if they persuade their friends to play. Fair enough. But this incentive program took a bizarre turn with the launch of the 'Star Kitten' line of in-game merchandise. Star Kitten is a shameless knock-off of the Hello Kitty merch empire, a pastiche of luminous colour schemes and infantile character art. Consumer response has been mixed. Some Citizens are looking forward to disintegrating every shill starship they see. Others don't want hot pink hardware in the game at all. They point out that lurid merchandise made for little girls is a poor fit for a gritty universe of quasi-realistic space combat.

Note that I made the deliberate choice of describing Roberts's customers as 'Citizens,' not 'players,' as the game itself is still far from complete. The upcoming '3.0' release is but another iteration of the alpha. Squadron 42 and the final form of the Persistent Universe, or P.U., are still a long, long way off.

Some day the story of Star Citizen will come to an end. Our poor hero, now approaching retirement age, will make one last tottering trip towards his mantle. There he keeps his most treasured items: his signed copy of Freelancer, a mint condition Gizmondo console, and... the monkey's paw. As the shadows of passing Hover-Ubers streak through the windows of his sitting room, he'll grasp the paw, take a pensive gulp, and make one last request:

"I wish that Star Citizen would finally launch."

And the third and final finger will curl shut... PC

JAMES COTTEE recalls Chris Robert's Freelancer was once considered vapourware.

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VENI, VIDI, VIVE-Y

A quick heads-up for the latest developments in VR

VR is taking us places - the movement is real - and those of us who have dropped the clams on the first premium products of its new era, HTC's Vive and Oculus' Rift, are certainly inhabiting worlds on the bleeding edge of new technology. But now after the familiarity has set in and the awe has been consumed, the anticipation for the next step is growing.

As a HTC Vive owner, I experience VR in a room-scale setting with motion controllers. I paid about $1200 for one of the units in April 2016 and waited excitedly for it to ship, reading post after post on VR forums by early adopters exclaiming, "Oh my god this is amazing", while counting the days until I could experience that myself.

My prior experience with VR was with an Oculus Rift DK2, the second development kit from the company now owned by Facebook. That was seated VR, you strap on the headset and sit at your computer while a little infrared webcam tracks the orientation of your head.

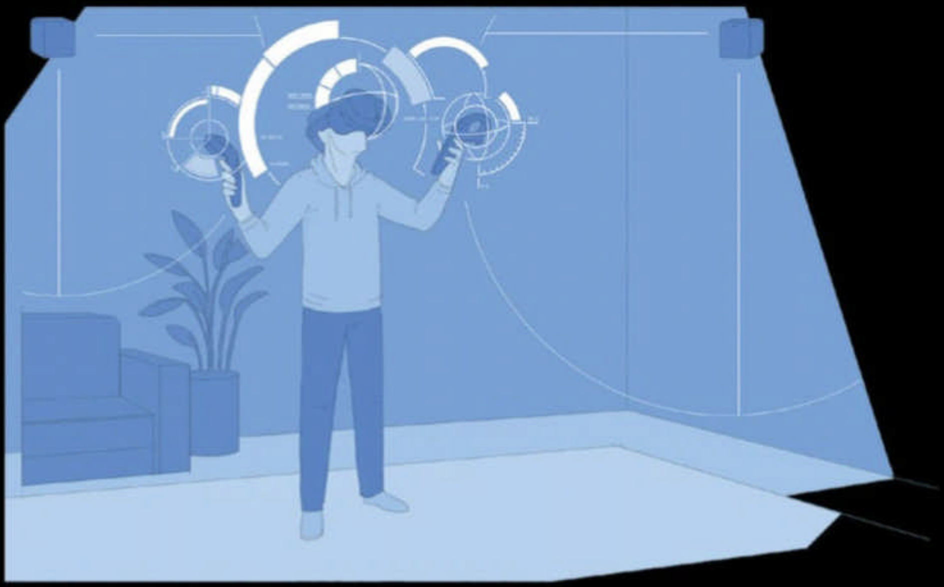
Vive users will know set up for their device is a little different.

One of the first tasks one must undertake to experience the joy of room-scale VR is figure out how and where to mount the Vive base stations, the two laser-projecting cubes that track the headset and controllers in real space. I initially got mine up with a couple of clamps and two plasterboard extension poles from Bunnings, giving my apartment this great 'perpetual renovation' kind of vibe. In my latest apartment I've mounted them straight into the walls, drill and everything - fortune favours the bold my friends. A Vive user also needs to mark out their playspace using one of the motion controllers under the guise of the base stations. I'm always re-marking out the edges of my virtual playspace to find that sweet spot to get the maximum possible area while minimising the risk of unforeseen wall collisions or stair dismounts.

The experience is indeed unlike anything I've tried before. Slapping the headset on and using room scale VR is as close to standing on the Holodeck as you can get (you can even download a Holodeck environment from the Steam workshop to serve as a replacement for the default white 'construct' menu environment). Out of the box, Valve's The Lab offers a great set of demos that let you test the potential of room-scale VR and motion controllers.

Walking around my real space while inside the Robot Repair demo, checking out a damaged Atlas bot from various angles, was really quite astounding, and using the Vive controllers to wield a bow and arrow in Longbow or blast training drones with lasers in Space Pirate Trainer provided hours of fun and many, "Oh my god this is amazing" moments for the friends I demoed the Vive to. Owlchemy Labs' Job Simulator and, more recently, Rick and Morty VR pack in so much interactivity that using the motion controllers as surrogates for your hands feels natural and intuitive. Swinging a lightsaber in a very short but good-looking Star Wars demo is a dream come true, and painting with your hands in 3D with Google's Tilt Brush is an all-new experience.

Just as compelling as picking up a game can be some of the free experiences or tech demos around. 4thFlrStudio, by US artist Brendon Coyle, is a photorealistic 3D scan of a small studio apartment you can walk around in. The pairing of photogrammetry for realism and room-scale movement delivers a surreal and exciting experience. Cosmic Sugar, available for free on Steam, is a particle system demonstration that lets you use your hands to apply forces to a cloud of colourful dots in black void that makes for some cool flail-your-arms-around moments.



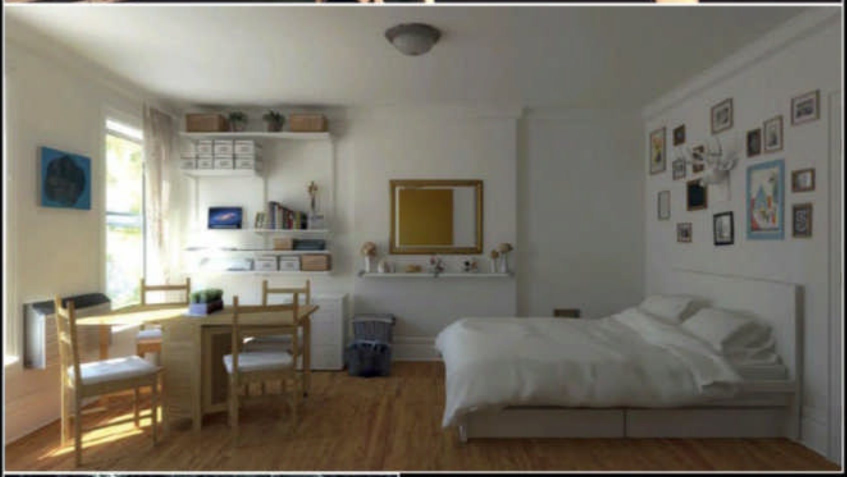
> I got mine up with a couple of clamps and plasterboard poles from Bunnings

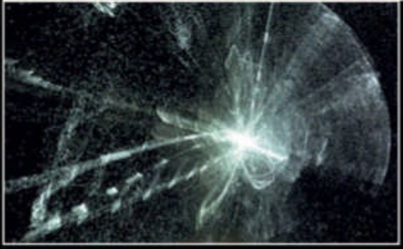
Destinations, another Valve title, lets you walk around dozens of photoscanned environments for some pretty impressive virtual tourism. I've had the most mileage out of Arizona Sunshine, by Vertigo Games and Jaywalkers Interactive. Stretching out your arm and looking down the sights of a zombie-trained pistol doesn't get old fast. Pulling the trigger and feeling the rumble of the haptics is very satisfying.

Nowadays, the SteamVR library is growing strong, though in honesty the number of quality experiences at fair prices still leaves me wanting. Many of the titles I mentioned above have been out for a while, with the most promising new titles trickling out slowly.

The SteamVR platform is very accessible to budding developers and VR enthusiasts, which is both a blessing and a curse. It's great to open the possibilities of content creation to all, but for every premium quality, professionally produced game there are dozens of crappy, half-cooked Unity projects that somehow make it onto Steam, making the search for content a laborious endeavour.

Many of the games are expensive relative to their length or scope as well; be prepared to occasionally shell out $50 for a title that may not last long before the novelty has





▲(top) Space Pirate Trainer simulates what it must be like to be killed by Samus Aran.

(above) 4thFlrStudio has you exploring an apartment in a weirdly stalkerish way.

◀Cosmic Sugar is definitely not about drugs, nope not at all.

worn off. Sampling the broad spectrum of experiences stacks cash on top of a pretty hefty price barrier to entry already.

Comfort for the Vive is also bit of an issue. I would love to spend a lot longer globe-hopping from across Google Earth VR, but after a while, because I'm standing, the weight of the front heavy device is either causing some neck strain or burying the three-cord over-head cable into the top of your skull.

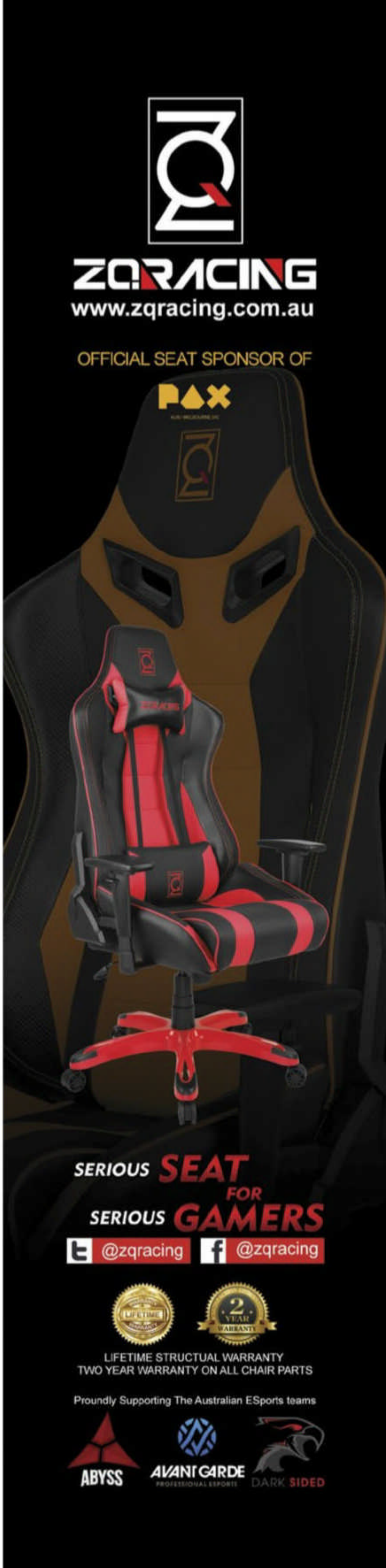
Sweat is another factor, and no wonder: your face has two monitors attached to it beaming light and heat through onto the area the size of a ski-mask; after a while of physical gameplay it starts to cook in there.

HTC has this month released the Vive Deluxe Comfort strap, which features a more padded, head-clasping design with built-in headphones (similar to Oculus' more baseball-cap-like consumer edition design). It will be interesting to see how comfort improves with this new peripheral and we'll keep you posted.

The resolution and field of view are the other major issues I have. I know, it sounds indulgent; the tech is so new, 'What do you expect?'. I get it. I am very impressed. But I'm also excited for the next step, when I'm not looking a blurry images bordered by the edges of a screen I wish weren't there, while moving comfortably and untethered by a hefty cord as I go.

The challenge of a simple room-scale setup is there as well, with companies like Microsoft, Intel and Lenovo experimenting with computer vision to perform inside-out tracking, and to chart real world boundaries for you.

The revolution has arrived, we look forward now for its evolution. *MICHAEL JENKIN* PC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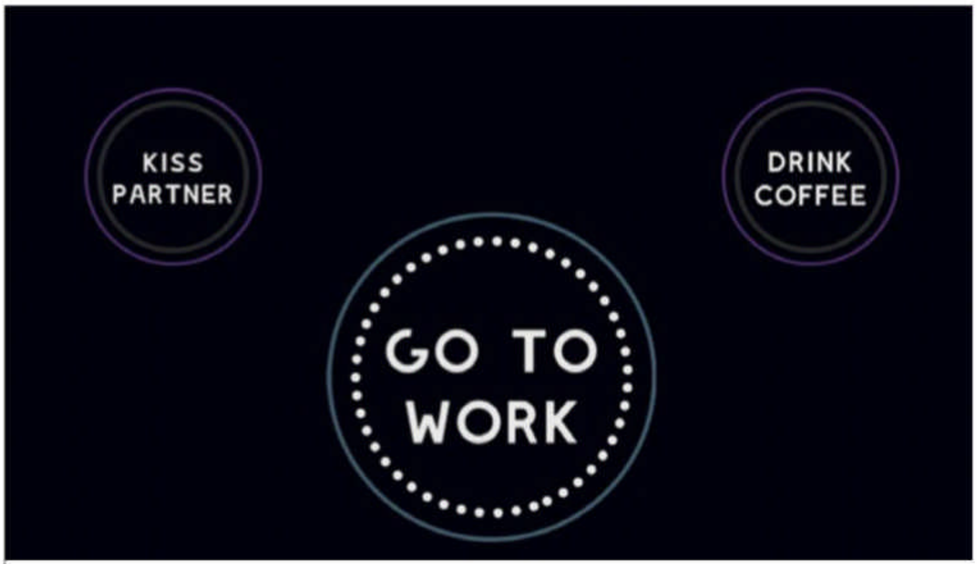

Not Futile

Small steps towards a better world still create essential momentum.

On my desk there's a pot of jam, mounted importantly on a little block of wood. Looks delicious, but I've probably missed my opportunity to eat it. I won it at Global Game Jam in 2014, where I took my laptop to practice making music. As well as participating, I also play jam games, in my search for interesting indies. I love how designers can use limited time, scope and a unifying theme to explore bite-sized concepts that are artistic, mechanical or technical. Jam games do sometimes eventually become full indie titles. Or they demonstrate some useful new idea in its embryonic form.

The recent Resist Jam hinged on the theme of "resisting oppressive authoritarianism" as well as sub-themes like "this is how it feels" and "migration power." Also prioritising concepts like hardware accessibility and localisation, the resulting games are varied, intriguing and of impressive quality. Just head to Resist Jam's itch.io site and play directly from there. They're all free to play.

Games like Tending the Resistance, where you water flowers and watch the butterflies, make their point incredibly simply. Others combine uncomplicated mechanics with deeper story. I particularly enjoyed Facts and Futures which rewarded signal matching tasks with an enigmatic narrative, delivered by evocative voice acting.

Illegal Alien saw my little character hopelessly trying to earn money making pizza while people were shooting at them. I have no idea if the game can be beaten, but I did try. In Swamp Alchemy, I combined a skull with a mushroom to make a race of forest imps that society promptly marginalised and segregated. I left feeling like a defeated god. In Love Thy Neighbour, a nicely written text adventure, I explored a person's memories and past. Somebody is Listening is like a simple Hacknet, where you investigate a crime by noticing who is calling who.

My friend, John Kane, made Sonder, where statements about friendship are represented through satisfying puzzle scenarios. I also loved Playground Break, a series of competitive schoolyard games you can play against others. It reminded me of Epyx's California Games, except that the music made it hilarious, somehow. There was also a pixel-art point and click adventure, The Last Hope, which captured my attention for its monochromatic art and bleak setting, but I couldn't progress from my prison cell. (I believe it is unfinished but it made its point regardless.)

> I combined a skull with a mushroom to make a race of forest imps

I think my favourite browser game from Resist Jam, however, was Wake Up, by Inverge Studios. You arise on Day 236 of the Regime by selecting a pop-up circle, then on subsequent days, and have to make a series of choices about your life. You could select a circle to kiss your partner or make a coffee, but there is always an oppressive sense that you should be at work immediately. While working, you might get flashes of exhaustion or an opportunity to rebel. In time, the people you meet can shape your life in ways will have consequences.

Wake Up is definitely reminiscent of Papers Please, with the sense of constant, menial tasks requiring attention. After playing, I wanted to smash the alarm clock that wakes you up each day. What seems noticeably more obvious, immediately, is the protagonist's desire to rebel. Refusing to conform is rewarded with friendship, new directions and circles that behave evocatively if you're frightened, angry or heartbroken.

As bleak as it may be, Wake Up is an emotional game. It explores issues like unfairness, control and identity, exemplifying the themes Resist Jam centred on. I've provided more information about this one game, but all the games that I've mentioned this month are suitable accompaniments to your coffee break and will leave you with some small inspiration or feeling of empowerment. Who said games can't contribute towards meaningful change and progress? Art will always be political. It's interesting to appreciate it when it's deliberately so.

When I'm trying to encourage my composition students to participate in game jams, I get them to go to the Indie Game Jams website, and browse the many jams that are happening on any given day. Quantity is interesting, but quality happens as a result of great planning. Resist Jam even had a series of online lectures from industry professionalsto support creators. Resisting oppression is important to many people and Resist Jam allowed designers to create a surprisingly special collection of beautiful, powerful and moving games. PC

MEGHANN O'NEILL
is secretly jealous that James Cottee's column is called Jam.

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THE MAUS THAT ROARED

World of Tanks is now six years old, and Wargaming intends to keep the hit free-to-play game fresh and relevant for years to come. But not everyone is happy with the latest changes being rolled out. We talk to **KIEREN 'SKELL' MOORE** and **CHRISTIAN 'SAFFE' SAFKO** from local eSports powerhouse Team Efficiency about how the meta has been changing – in some ways, for the worse...

WHO KIEREN MOORE & CHRISTIAN SAFKO
WHERE TEAM EFFICIENCY, WGL
WHY THE WARGAMING LEAGUE APAC SEASON II FINALS

We recently had the chance to chat with two of the best World of Tanks players in Australia, Kieren Moore (Skell) and Christian Safko (Saffe), at the Wargaming League APAC Season II Finals held in Taipei. We spoke hours before their climactic battle with the seemingly unstoppable favourites from Red China, EL Gaming, and our conversation touched on such topics as the need for rigorous discipline in training when everyone in your team has day jobs.

But the topic that concerned Skell and Saffe the most was the major re-balance applied to the Tier X meta in mid-January that gave a huge buff to the Maus. This in turn reduced the relative effectiveness of the traditional Tier X tournament favourite, the Batignolles-Châtillon 25t (AKA the Batchat – some call it the Batmobile), a high-speed, high-skill ceiling tank infamous for its devastating burst damage.

Skell is convinced that these buffs to the Maus have been a disaster for tournament play. "I think instead of more possibilities, there's a lot less possibilities now. In almost every city map, and half of the open maps, the Maus just is too strong. Its gun is good now. It's just too hard to fight directly, without your own Maus."

Saffe elaborated. "The other problem is because it's so slow, previously you could have the initial fight breaking out within the first minute. The first 90 seconds. Now it takes two to three minutes half the time to even get the Maus to the front line. And that doesn't give you a lot of room to actually use the whole width of the map. Because you just don't have time to move back and forward. It actually does limit the way you can play. And that's what you see. If you look at the screen now, most teams pretty much play the same, with small tiny variables here and there, where they decide to make their big push.

"That's mainly in city maps. Open maps are still played pretty much the same. The only difference is, once again, the Maus is there instead of maybe another heavy tank. You would never have seen a Maus on Steppes, previously. You wouldn't have seen a Maus on Prokhorovka previously. You probably wouldn't have seen it on Murovanka either. Now you see it purely because it is not just a defensive block. It has a lot of attack possibilities. Like Skell said, the gun is great."

Skell concurred. "It's great. And it's an amazing anchor, for any team. Because it is so hard to take it down. Even with two or three Batchats focussing on it completely. That would be enough to take it down, but then you've spent three autoloaders' clips to take one tank. That's just how difficult it is to play against directly."

> now, most teams pretty much play the same, with small tiny variables here and there

Rapidly, clearly, and concisely, the pair relayed their concerns; a hint at how a superior e-sports team communicates under pressure. When asked point blank if they believed the recent changes to the meta were a mistake, their response was succinct, and instant: "Yes."

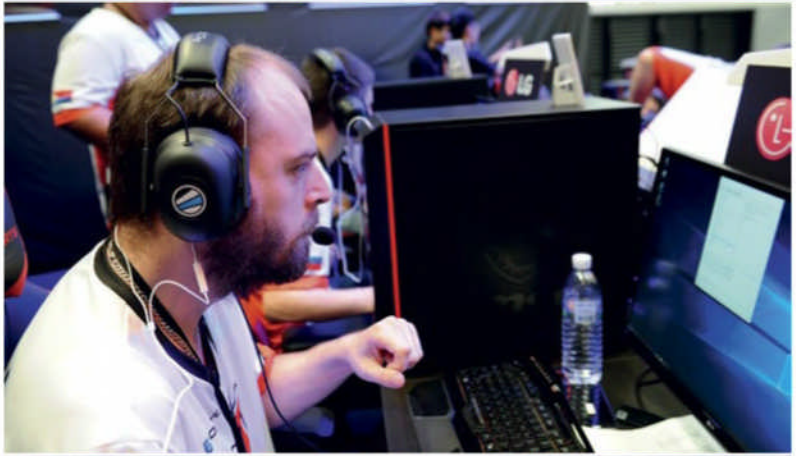
The folly of buffing the lumbering German mega-tank was a point that Saffe could not stress enough. "I think once again, we keep mentioning this, the Maus is supposed to be a defensive tank, that you can use as an anchor. I have no problems with how they buffed the armour on it. But buffing its HP pool and increasing its HP was... There was no need for it. And they're giving it a gun that's pretty much better than every other tank... Where's the logic behind it? Why would you play another tank, when you can play something that has the best armour, and pretty much one of the most accurate guns in the game.

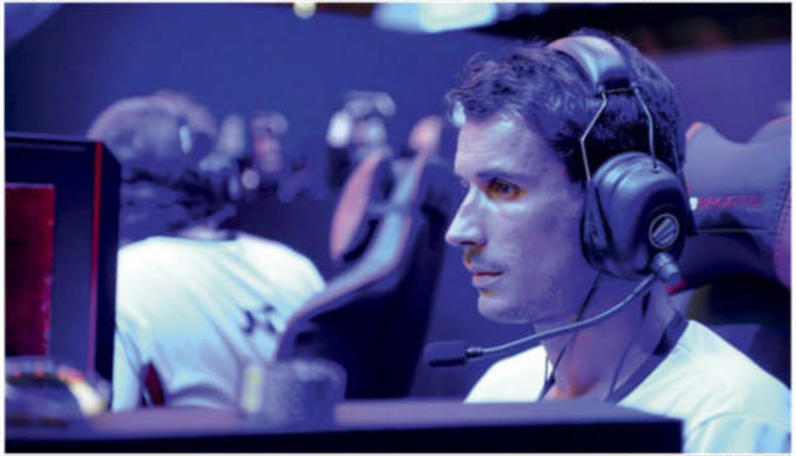
"Keep the armour, that's fine. But the gun needs to be nerfed, so you only use it for defensive purposes. That's my thoughts behind it at least." Saffe's opinion definitely reflected the state of play at the tournament that weekend. In just about every battle each team fielded at least three Mauses – sometimes four. In one battle Saffe, an ardent Batchat fan, even drove a Maus himself, and managed to pull off a daring flanking attack. At the tournament level at least, World of Tanks has become World of Mauses.

At the time of our conversation, Wargaming was on the cusp of launching the long-awaited 9.18 patch, with its promised streamlined match-maker, and complete re-work of artillery.

An ardent light tank player, Skell chose to reserve judgement on how the addition of Tier X light tanks will pan out. "It's hard to say exactly how much the light tanks will change both the pub games and what we do in WGL. It's really hard to say. We really don't know until you get the tanks in their final form and you get to see exactly what effect that will have. Especially when you compare them to the existing medium tanks. And whether their speed and agility can really offset the DPM of the existing medium tanks.

"As for artillery, it's really hard to say. For pub games, it's going to have a huge impact. It'll definitely bring players back. But once again, until the final form, it's really





AM EFFICIENCY

hard to say exactly what effect it will have, especially in WGL. Where at the moment there is some artillery being played, but not a great deal."

Saffe ventured the opinion that Wargaming's efforts might be better focussed elsewhere. "For me, personally, I don't see a need for Tier X light tanks right now. I think there needs to be more work towards making WGL more suitable for the casual gamer. Which it's not at the moment. The e-sports format is very different. They need to figure out a way to work around that rather than introducing new tanks. That's my opinion. But like Skell said, it needs to be reworked, and I'm glad they're trying.

"We don't know what the end result is going to be. If it's going to be positive or negative. I guess we're just going to have to wait and see."

At a press conference two days prior, Wargaming's head of global competitive gaming Mohamed 'Mo' Fadl spoke at length about the need to make e-sports more of a viable career path for players, and floated the possibility of giving the best players base salaries so they needn't work day jobs on the side.

When I asked Skell and Saffe whether they thought this could be a worthwhile initiative, their response was grounded – Saffe asserted that the best way to grow World of Tanks as an e-sport is to make the tournament format more accessible within the client.

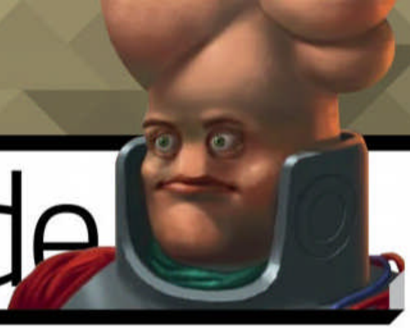
"They need to, once again, make some kind of in-game system where the average player can just jump in to a battle, which is the same format as the WGL format. Right now it's not that easy. You can't just go click Battle, get thrown into a random team, and then go and learn the ways of how WGL is played. That's probably the biggest thing they need to work on right now.

"The player base in certain regions are smaller. That's fair enough. But the player base that plays WGL, is, I'm not even sure if they have 5%. 5-10% are maybe aware of it. Maybe a bit higher. But 2-3% are playing it. Fix that, and you will grow e-sports. Simple as that. You need players to play. It's all well and good talking about salaries. Sure. I would love to get some kind of salary from it. But it's not realistic until you actually have the player base, and that's what they need to work on. That's my opinion, though."

There are other aspects of the game with room for improvement – Saffe was critical of several of the maps currently in rotation in pub games. "There's a few maps that just needs to be reworked. Like El Halluf, which is mainly just three squares where you battle it out. Windstorm is a horrible map. Basically, most of the new maps they've introduced are actually pretty bad. Because they're just corridor maps. There's nowhere for me to flank, and you just have to fight engagements head on, which in a Batchat is terrifying. Because you need some kind of manoeuvrability where you can actually go out wide and find openings. Which you don't on a city map. You don't know what's around the corner." An RU-251 aficionado, Skell held the same opinion.

As our audience drew to a close, Skell used his parting words to thank Team Efficiency's fans for their support. "We're always reading back a lot of the chats, and seeing people support us. And that's amazing. For us who aren't actual professionals, it's incredible. It's weird." *JAMES COTTEE* PC

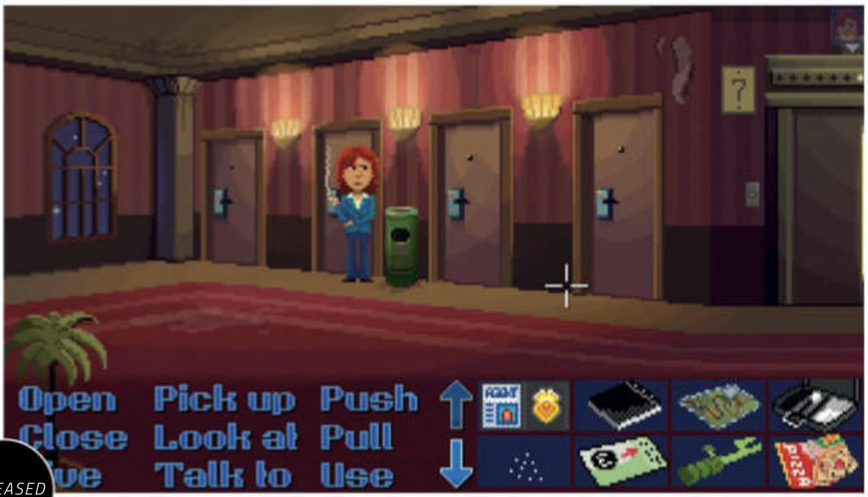
A Collection Aside



The line between old and new blurs this month, when retrogames properly return as better designed, more beautiful versions of themselves, and new games, that look old, get more content. **MEGHANN O'NEILL** thus has more chances to drag her kids through both her own videogaming childhood and theirs. She didn't let them play Paradigm, though, because it's set in the future. And she suspects her dad wouldn't have let her play it in 1987 anyway.

THIMBLEWEED PARK

DEVELOPER TERRIBLE TOYBOX
PRICE USD$20
thimbleweedpark.com



RELEASED

Early in Thimbleweed Park, we had wilted lettuce, a can of non-trademark-infringing Poopsi and various other bizarre miscellanea that were forming some kind of vague, almost-plan in our minds. The nine year old, who we now refer to as, "the rememberer of important details," wanted to continue ruminating. The seven year old, who we now refer to as, "the noticer of important things," wanted to see what was coming next. Me as, "the knower of the adventure genre," unexpectedly found a way to progress, without Poopsi-soaked lettuce.

I played a lot of adventure games in the '80s and '90s. I played what was available in the '00s and I play a lot now, reflecting all budgets, genres and verbs. I can tell you that reviewing Thimbleweed Park is the best experience with an adventure game I've ever had, at least partly because playing with my kids, who are at an age when I used to play with my dad every morning, was a special experience. When it was over, my kids mimed putting Eric's Eye Magic Drops into their eyes, crying, "All we wanted was to play this forever." Yes.

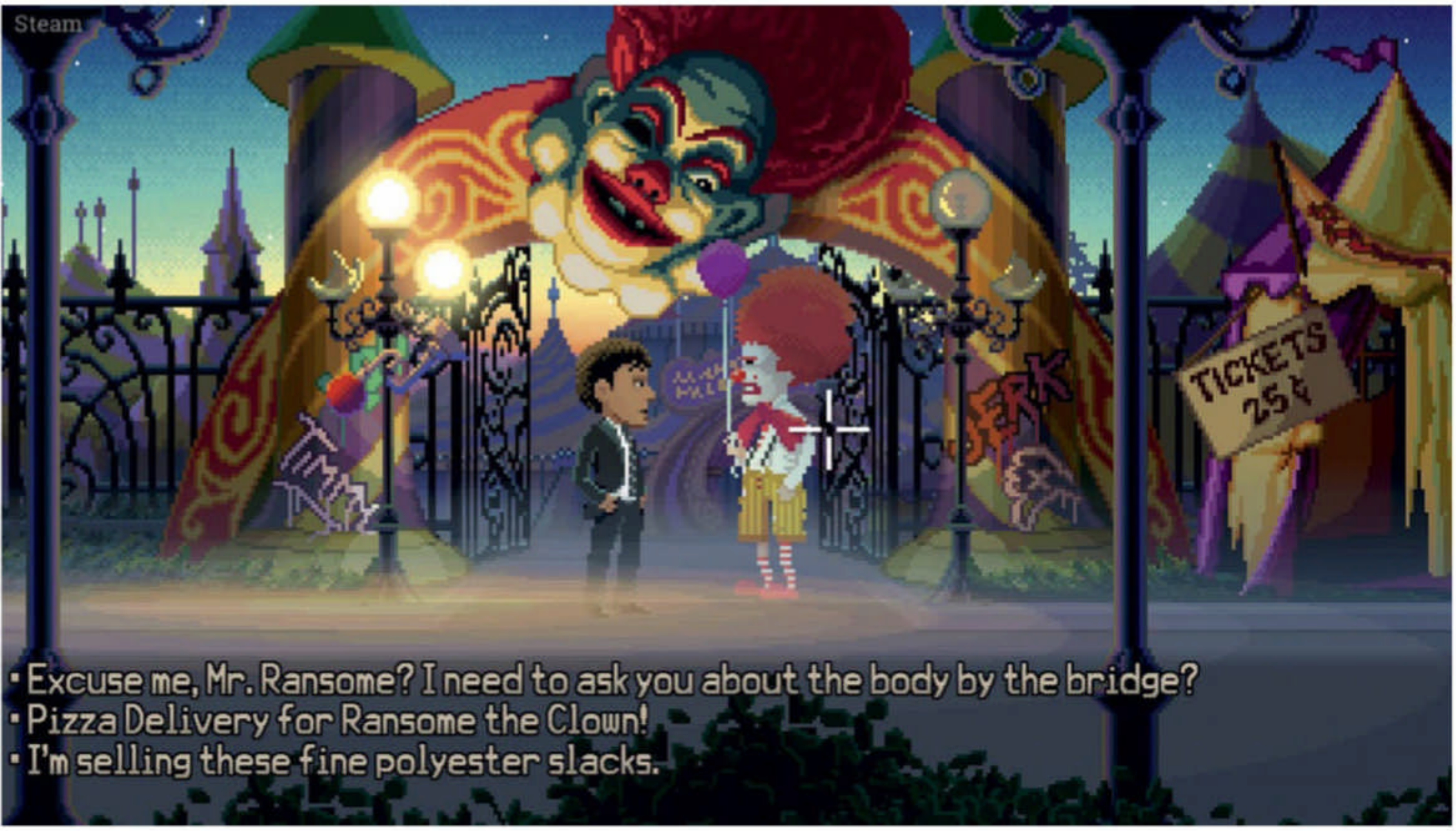
Certain personal preferences aside, this could be the best adventure game, full stop. So I'll raise my one reservation first; is it possible to include too many red herrings? I do love items that have, or appear to have, no purpose. They obfuscate puzzling, stimulate imagination and engage curiousness about the world you're exploring. There were occasions when we were convinced we were close to solving a puzzle, but then it lead nowhere, leaving us desperately unsatisfied, even though we did find different uses for the Poopsi and individual items.

It's because these (presumably false, although I'm not entirely sure) leads felt like actual quest objectives. It gives the impression that content was planned but not realised. Amazingly, the narrative provides some insight into this process. And the final game is an excellent size and scope, we just wanted to solve the puzzles we were perceiving, as well as the ones that existed. With that considered, I know that "best adventure game, full stop," is a big call, so I'll outline why I believe this and you can make your purchasing decision accordingly.

People have their preference for interface and you could certainly dislike superfluous verbs in your adventure game. (I guess.) What if, however, you could rely on actually using "push" and "pull" meaningfully? Good, right? Can't be bothered always pointing and clicking on verbs in the left corner then back up to objects? My 7 year old learned how to use the keyboard shortcuts in a few minutes and right mouse to skip to the most likely verb, by context. As with everything in the game, designers combine hardcore, nostalgic and, most importantly, considerate.

Casual mode, in which some of the more convoluted puzzles are pre-solved, is another way designers welcome new players, and you know what else (supposedly) sucked about adventure games? Mazes. Not any more they don't, but I'm not spoiling this further. Also, pixel hunting. Annoying waste of time, right? Just imagine these aspects as hilarious, meaningful or clever, and my raising them will seem less ridiculous. Is this a game where you can die? Let's just say that designers won't give you cause for death-related anger, and this is an important point.

You see, I could write an essay on dying in adventures, but for any aspect of adventure game design you or I could write an essay about, the designers could write ten. Very quickly, I knew to trust that my time, history and understanding of the genre was being respected. Interestingly, this was also true for my children, who were approaching this as very different players. They knew their objectives as



• Excuse me, Mr. Ransome? I need to ask you about the body by the bridge?
• Pizza Delivery for Ransome the Clown!
• I'm selling these fine polyester slacks.

detectives, as well as how to switch between characters and interact with the world without any assistance from me at all. And the jokes successfully tickled all of us.

Certainly, you could love or hate aspects of the plot, humour and ending. Personally, I usually prefer serious, enigmatic, modern adventure stories, like in Shardlight. But it's very hard to find fault with the game's (relatively nonlinear) narrative structure. It's delightful how both one story and five stories unfold together. And I don't know why strings of bleeped out expletives are so funny, but Ransome, the irritable clown, had my kids and I in stitches. The voice actor hits a perfectly incredulous, "What the beep?" when you transfer an item to Ransome.

By contrast, young Officer Reyes' earnest, "I love carrying stuff," has made my kids more helpful around the house. (So they can quote the line.) A game with five characters relies on each having their special qualities and some content being character-exclusive, but great voice acting definitely adds value. I most love how the characters blatantly ignore what they should and shouldn't know about each other as you solve increasingly interlocking tasks. Ridiculous? Yes. Good for puzzling and player? Definitely. Does this make any sense? Surprisingly, kinda.

As I said, trusting that these designers understand their genre is pivotal. Characters in Maniac Mansion had no idea why they were doing things. In any other context, I'd complain. But, do you really want to walk the detective over to the ghost to give him the instructions he needs to solve her problem when you can just do it, and it's funnier that way? My kids particularly loved how the game made us jump through hoops to get a map, then pointlessly rewarded us with fast travel maps for everyone. Again, it's always considerate like that.

Thimbleweed Park only gives you exactly as much "nostalgia" as you need

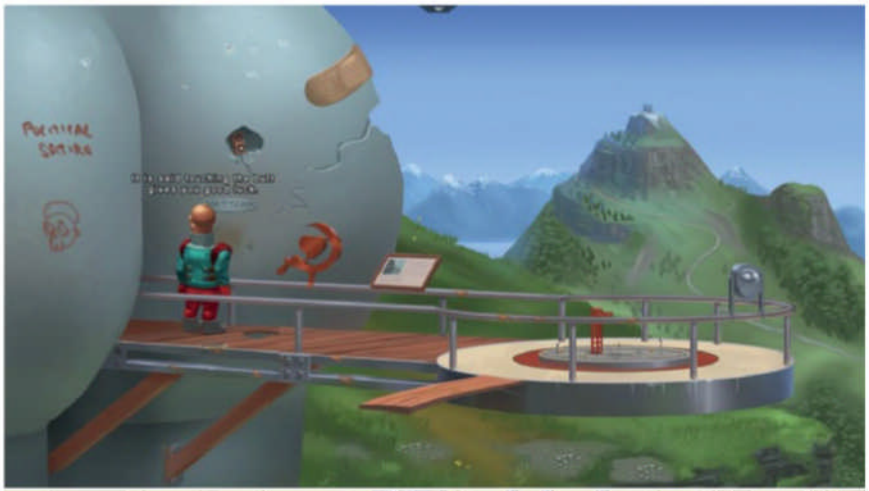
I mean, Stair Quest wouldn't exist if players didn't want to feel that '80s angst, but then Thimbleweed Park only gives you exactly as much "nostalgia" as you need. This partly also explains my reluctance to give you more information about plot and puzzles; you don't need more. In a nutshell, you start out investigating a murder. Characters are added via vignettes of backstory and you have to consider who can do what, when solving puzzles. Otherwise, it's listen carefully, look at everything and combine items. Oh, and enjoy ThimbleCon.

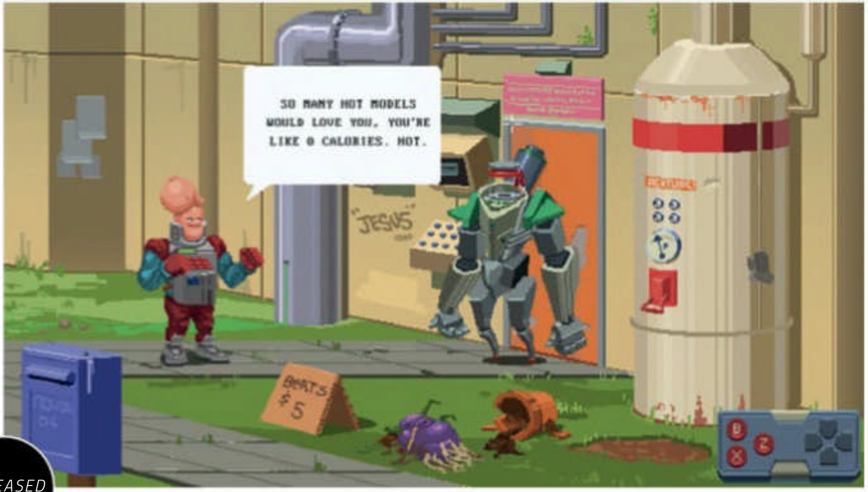
There were moments that surprised me with their touching honesty and I'd like to make sure you know some of the small, personal connections I have with the team. I still chat occasionally with David Fox after writing a flashback on Zak MacKracken, years ago. Emily Morganti is a funny and attentive PR person who I deal with a lot. I follow Jenn Sandercock's edible games and industry commentary with interest. Obviously, Ron Gilbert is an industry legend and, if you follow his blog, you'll know how thoughtfully he approaches design. So, I know people a little.

When I last previewed Thimbleweed Park, my angle was that I didn't want to be spoiled by any details. In retrospect, I was also reluctant to really believe in this game. I didn't want to be disappointed, given my fond memories of playing adventures with my dad. But, if anyone could make a game uniquely for me and my kids, at exactly this point in our lives, it was this team of people. They didn't disappoint me. Is this the best adventure game, full stop? Apart from a few red herring moments, I was delighted by how its design exceeded every other one of my expectations.

PARADIGM

DEVELOPER JACOB JANERKA
PRICE $15
www.paradigmadventure.com





SO MANY HOT MODELS WOULD LOVE YOU. YOU'RE LIKE 0 CALORIES. HOT.

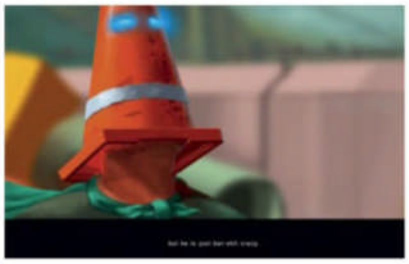
RELEASED

■ So if I just argued that Thimbleweed Park may be "the best adventure, full stop," I'm a bit concerned about what this might adversely imply for this page's Paradigm review. Remember in the '80s and '90s, you had your outlier adventures, like Eternam or The Last Express? I don't know about you, but I loved them as much as the Monkey Islands, just in a different way. They were often unusual, told an unexpected story or experimented with some clever mechanic. Paradigm is the suspicious, but delicious, processed meat between slices of Thimbleweed Park.

I feel as if I should begin by saying that designer, Jacob Janerka, is known for his unrelenting, absurd humour, except that (incredibly) Paradigm is Janerka's first game. There's something about the exhausted, ribs-aching-from-laughing feeling that reminds me of how TV shows like The D Generation developed increasingly ridiculous characters, week by week, through a lens of familiarity. I feel like I've been laughing at Janerka-jokes my whole life, even though it's only been a matter of hours. That's clever comedy.

Paradigm is like watching, with sick fascination, as someone entertains themselves with a sexy puppet show that is getting way out of hand. I nearly didn't submit this review on time because I was too busy trying to flirt with a water cooler that has a face arranged out of macaroni on a plastic plate. There is always one more line of humour to find. After you've listened (in detail) to how your character would like to make a blanket fort out of a cardboard security guard, you get a quiet, resentful, "No girls allowed," and your laughing begins again.

The puzzles are cleverly crafted. As well as finding, combining and using a range of bizarre objects, like the Krusz Army Knife (which is actually a serrated spoon), my favourite puzzle included simply listening carefully, after I knew what I needed to hear. There's an arcade influenced minigame where you learn skills that are hilariously implemented later, and "push button to X" moments that made me smirk. There are also interactions for look at, use, pick up and talk to, for all of the world's objects, even if it's just, "Hello, empty bottle."



The art is incredible, detailed and difficult to describe. It's aiming for garish realism, where ugliness is accentuated. The Butt Monument, which takes itself very seriously, is even adorned by a gigantic, dirty bandaid. (Having travelled in Eastern Europe myself, I can attest that Janerka's reworking of these monuments is irreverent, but faithful.) Character portraits, close up when you're talking, are mesmerising. Janerka has a flair for drawing lips, in particular, and the pimples should probably win some kind of game art award.

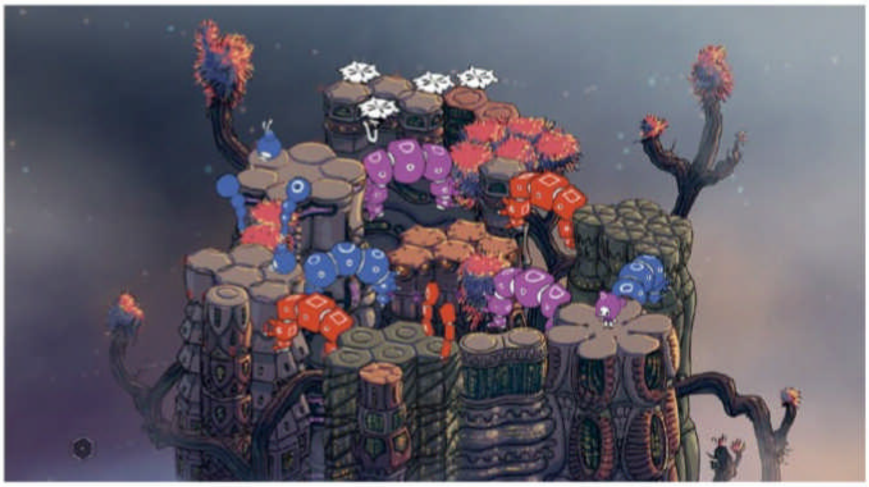
Similarly, the character's main objective, apart from saving the world, which is really more like a side quest, is to make "phat beatsies." The music in Paradigm is perfectly polished in every instance. My husband, a high school music teacher, was practically rolling on the floor with laughter as the sentient eggplant beatboxed increasingly enthusiastic and complicated rhythms. Then a kitchen appliance started rapping! Music is mostly delivered in a diegetic context, but these little moments organically create their own soundtrack as the game progresses.

I imagine a game like Thimbleweed Park, so clearly harking back to adventure gaming's roots, would be a must play for many. I do want to convince you that Paradigm is equally worthy of your time, money and attention. Think of it as the unapologetic, weird, sexy adventure your Eastern European cousin sent you in 1988, only with much better graphics and music. It's the game your parents wouldn't let you play when you were 9, because of all the drugs and dialogue like, "Hey kid, want to hail some Satan?" Now's your chance.

> I nearly didn't submit this review because I was too busy flirting with a water cooler

SHE REMEMBERED CATERPILLARS

DEVELOPER JUMPSUIT ENTERTAINMENT
PRICE $15
caterpillar.solutions



I mean, I couldn't not play a game called She Remembered Caterpillars, could I? What an amazing name for a thing! I'm not sure what I was expecting, but my brain sure got a workout. For something so sweetly presented, with hand drawn art and sad narrative vignettes, it's really very difficult. You're moving little blue spheres, red cubes and yellow pyramids, as well as orange, green and purple combinations of the 3D shapes, around an isometric game board, trying to get to helipads. And everyone's wearing high heels!

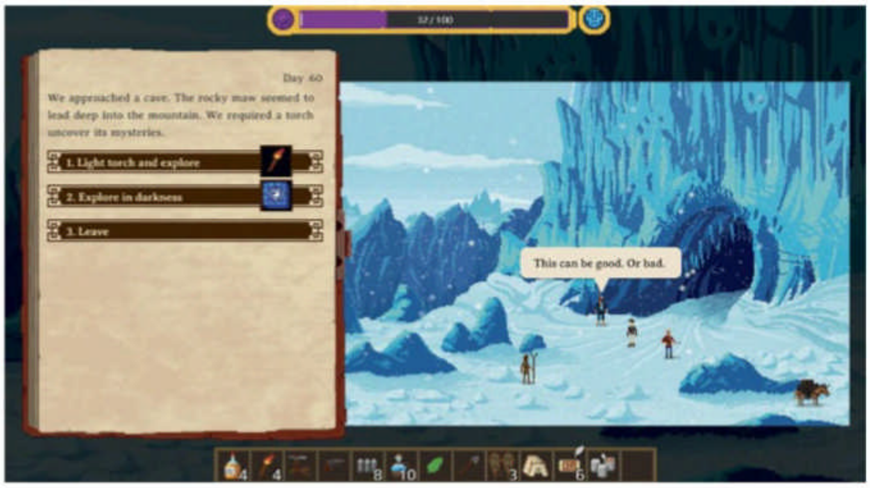
RELEASED

There are coloured bridges and you can cross if you are the same colour, or if you are made up of one of the colours, so red, orange and purple shapes can cross a red bridge. Then there are coloured barriers which prevent your passage if you are the same colour, or if you are made up of one of the colours, so blue barriers will prevent blue, purple and green shapes from passing. Thankfully, yellow is only introduced in Act 3, so there's time to practice with less colours. And, there's no brown. Brown would have broken me.

I solved puzzles by seeing a solution, which was great, and also by experimenting with what I knew I could and couldn't do, which was even more satisfying. I wouldn't recommend this to the people who aren't great at discerning colours. I imagine this is why the characters are also distinct shapes, but wow, seeing purely shape-based solutions would be hard. The story is lovely, if not always connected explicitly to play, and this provides suitable incentive to progress, if you're up for the cognitive challenge.

THE CURIOUS EXPEDITION: ARCTIC EXPANSE

DEVELOPER MASCHINEN-MENSCH
PRICE FREE
curious-expedition.com



Day 60

We approached a cave. The rocky maw seemed to lead deep into the mountain. We required a torch uncover its mysteries.

1. Light torch and explore
2. Explore in darkness
3. Leave

This can be good. Or bad.

As you may snow, I have a penchant for games set in freezing tundra. This is the only reason anyone would be mad enough to play RimWorld on an ice sheet, after all. Imagine my excitement to learn that The Curious Expedition, one of my favourite games of 2016, added an Arctic Expanse, and it's free. Reskin or meatier content pack? Mostly the first, but enough of the second to warrant a long replay session. You can't travel exclusively to the new areas, still jostling for position with the other explorers, but it's nonetheless an ice experience (*Cool - Ed*).

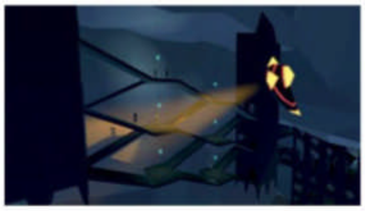
RELEASED

On my second expedition, I headed north. I'm actually glad I went after I had money to buy snowshoes because the region's unique, insanity-producing terrain, deep snow, is plentiful. It's harder to get around, but you can take dog sleds between stations. Instead of approval being the currency used for staying overnight and recharging sanity, you have to buy tickets for both sleeping and sledding. There are some additional, but similar, animals to avoid as well, but most temples, locations and events are identical to those on the original maps, only whiter.

Roll
Arctic Wolf

If The Curious Expedition was something you enjoyed but then left behind, consider all the precious relics Ada Lovelace is collecting right now, while you sit on your comfortable behind. If you're worried about deep snow, there's a perk for these things. You should be more worried about the arctic wolf who ate my nun, frankly. If you haven't played The Curious Expedition at all, there's snow time like the present. It was already an exceptional roguelike, exploration experience. Now it's even cooler.

10 to Watch

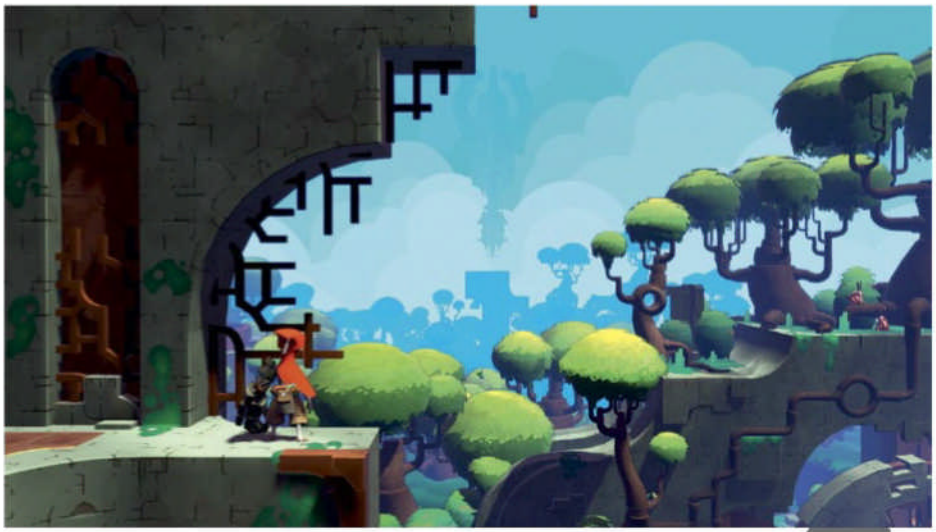


Panoptic

1

DEVELOPER TEAM PANOPTES
PUBLISHER TEAM PANOPTES
DUE 2017
teampanoptes.itch.io/panoptic

▼ First prototyped for a game jam, Panoptic is an asymmetric local multiplayer game for one person wearing an HTC Vive headset, and the other playing on the PC. The idea of the game is that the VR player takes the role of a powerful Overseer, keeping a fascistic eye on the city. The PC player takes control of a single rebellious citizen trying to bring down the system while hiding from the Overseer.

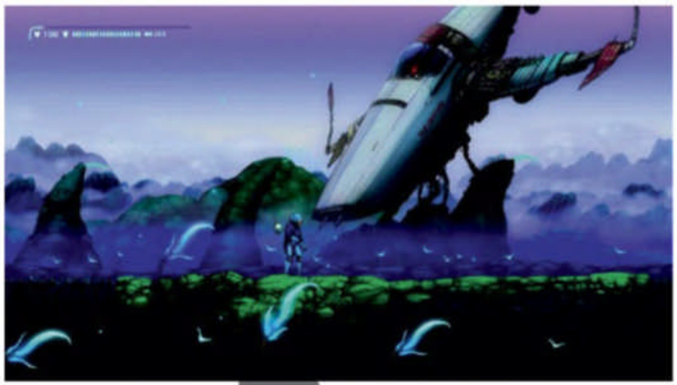


2

Hob

DEVELOPER RUNIC GAMES
PUBLISHER RUNIC GAMES
DUE SOON
runicgames.com/hob/

▲ The team behind the fantastic ARPGs, Torchlight and Torchlight 2 are back with something a little different. Hob is a narrative but wordless adventure game that sees the player transforming the world around them by either repairing faults or solving puzzles, all the while using a mechanical arm to fight enemies, grapple and traverse the environment. Looks rad.

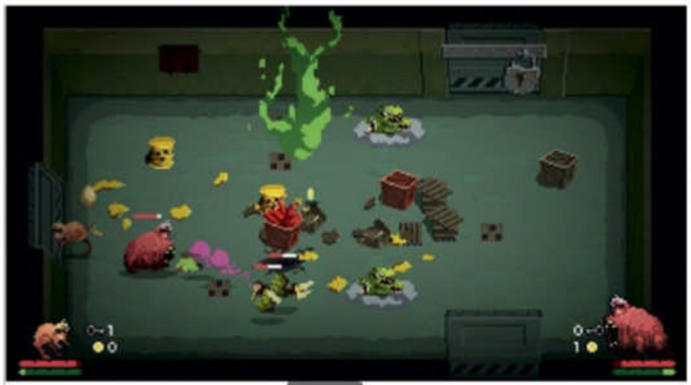


3

Ghost Song

DEVELOPER OLD MOON
PUBLISHER ADULT SWIM GAMES
DUE SOON
ghostsonggame.com

▲ Set on the desolate moon of Lorian V, Ghost Song is a Metroidvania style action/exploration platformer that looks set to deal with themes of isolation, loneliness and loss. Players wake up on the moon after a long (we suspect very, very long) sleep and must explore the caverns under the surface to uncover the secrets of the moon, meet the sad, forgotten and lost inhabitants of the moon and attempt to remember why you are on the moon in the first place.



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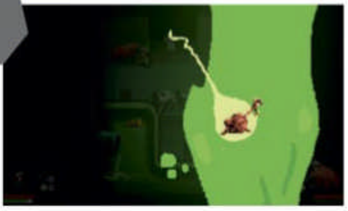
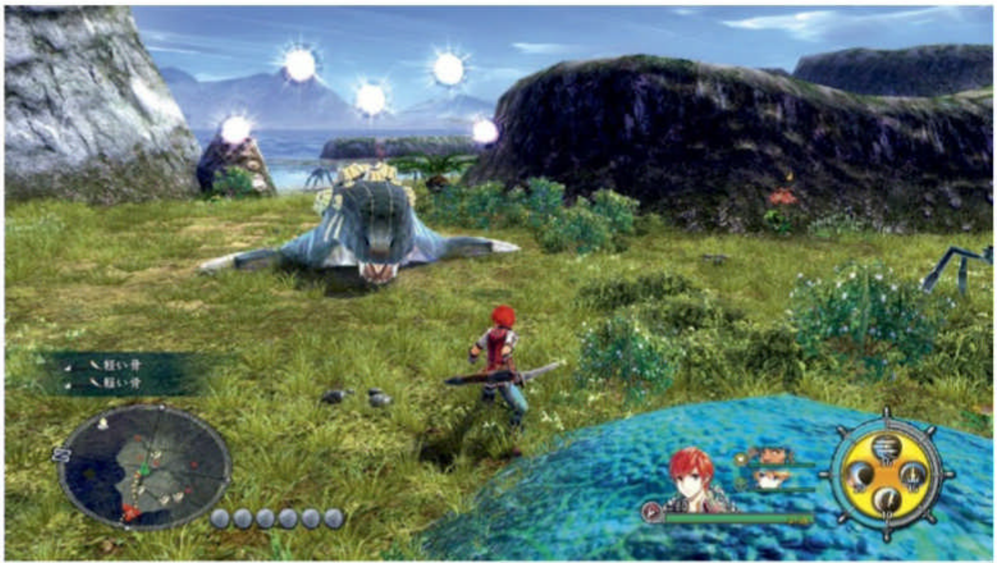


Freaky Awesome

DEVELOPER MANDRAGORA
PUBLISHER MANDRAGORA
DUE LATE 2017
mandragoragames.com/freakyawesome/

▲ Action packed Roguelike games are a dime a dozen, but Freaky Awesome has a twist that definitely makes it stand out from the pack. Up to four players can work together to fight through a mutant infested hellscape. Once an enemy is killed, its body provides valuable healing but there is one slight catch – each body you touch will also mutate your character into a new form, giving it new skills and powers.



5

Ys VIII: Lacrimosa of Dana

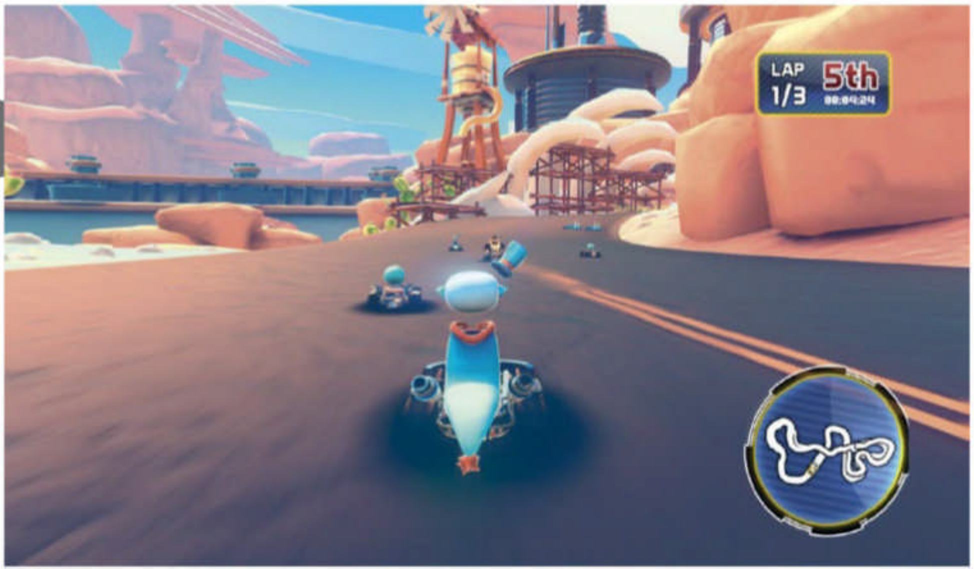
DEVELOPER NIHON FALCOM
PUBLISHER NIS AMERICA, INC.
DUE 2017
nisamerica.com/games/ysviii/

◀ The name may be a total load of nonsense, but the first new Ys game in eight years (and native to PC to boot) is reason to be excited if you like Japanese style action RPGs. Hero Adol awakens on a cursed island after being shipwrecked. Along with the other survivors, Adol establishes a village on the island. Not only must he defend it from the fearsome beasts of the island, he must also explore the mysterious ruins on the island and decode his own strange dreams about a blue haired maiden named Dana.

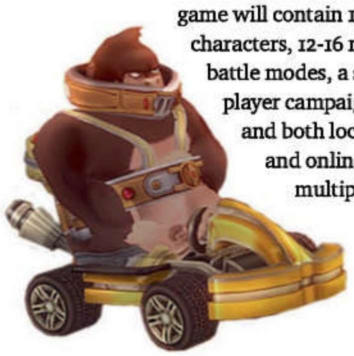
6

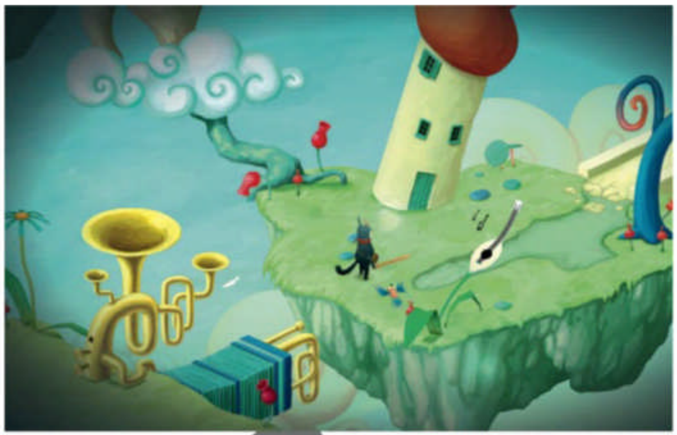
The Karters

DEVELOPER 10 ANTS HILL
PUBLISHER CMOAR STUDIOS
DUE 2017
thekarters.com



▶ The PC may be home to the best racing sims on the market, but when it comes to the immediate gratification of kart racers, the PC is definitely suffering a drought. The Karters should definitely help thanks to a design style that seems to draw heavily from both the Mario Kart and Crash Team Racing series. Currently in Early Access, the final game will contain 10-12 characters, 12-16 maps, battle modes, a single player campaign and both local and online multiplayer.





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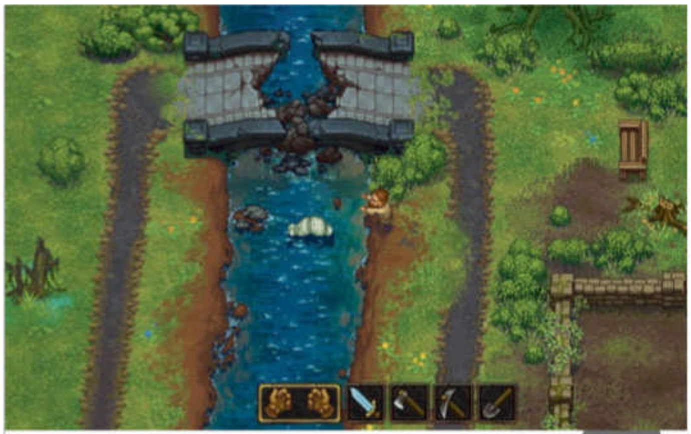
Figment

DEVELOPER BEDTIME DIGITAL GAMES
PUBLISHER BEDTIME DIGITAL GAMES
DUE SOON
www.bedtime.io/figment

▲ In a beautiful hand-drawn world, only the former voice of courage, Dusty, and his sunny friend, Piper can beat back the nightmares troubling the mind. For the longest time the mind has been calm, but now new thoughts have emerged, spreading fear throughout the Figment. Only Dusty and Piper can fight back against the nightmares and help the mind face its fears and grow calm once again. Solve puzzles and punch nightmares in a whimsical and musical world.



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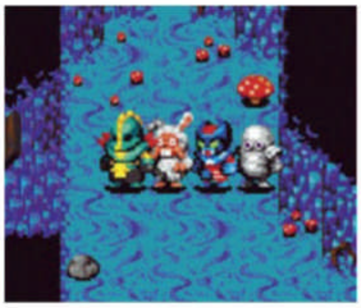
Graveyard Keeper

DEVELOPER LAZY BEAR GAMES
PUBLISHER TINYBUILD
DUE SOON
www.graveyardkeeper.com

▲ Maintaining a cemetery in the middle ages isn't the easiest thing, and it's not the most financially rewarding either – if you're a goody two shoes or stickler for the rules, that is. Do you really need to spend money on meat for an upcoming festival when you have a ready supply lying around? Will the dead really care if you sell some of their parts to anatomists? Do you really need to spend all that time digging a hole when there's a perfectly good and fast flowing river nearby? Who is ever going to know?

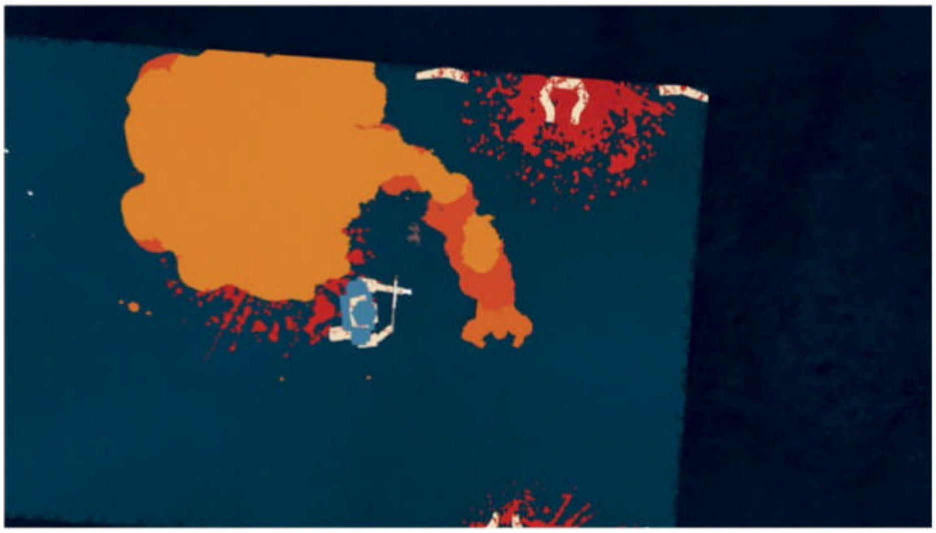


Kaiju Big Battel: Fighto Fantasy

9

DEVELOPER PAUL HARRINGTON
PUBLISHER SUPER WALRUS GAMES
DUE MID 2017
kaijubigbattelgame.blogspot.com.au

▼ The Boston based wrestling/kaiju underground performance group (known for wrestling style shows with performers in giant monster costumes taking the role of Kaiju in a mixture of wrestling and Japanese pop-culture parody) is making its way to the gaming world in the form of a turn-based RPG. Do you have what it takes to battel the evil Dr. Cube across time itself, defending the past from mad science and evil giant monsters?

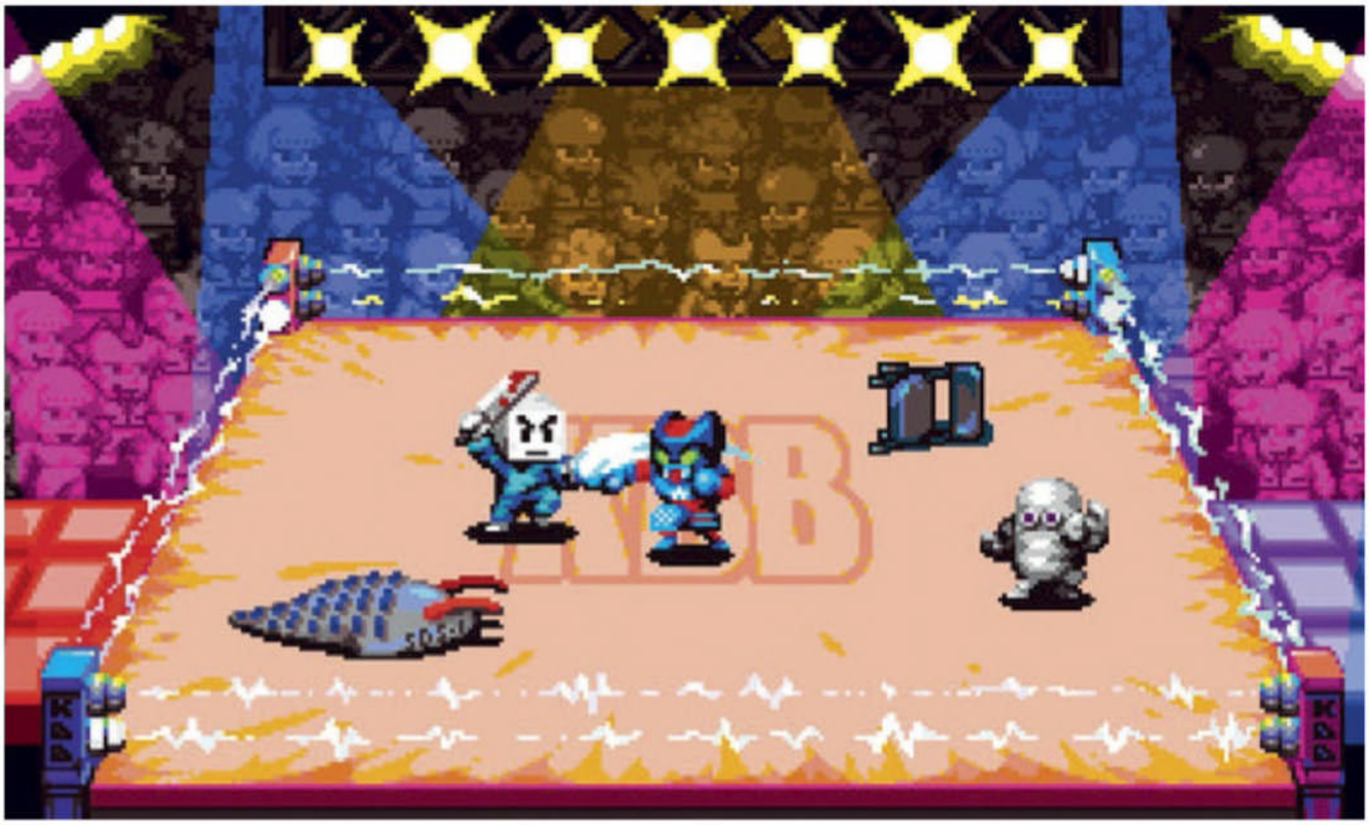


Ape Out

10

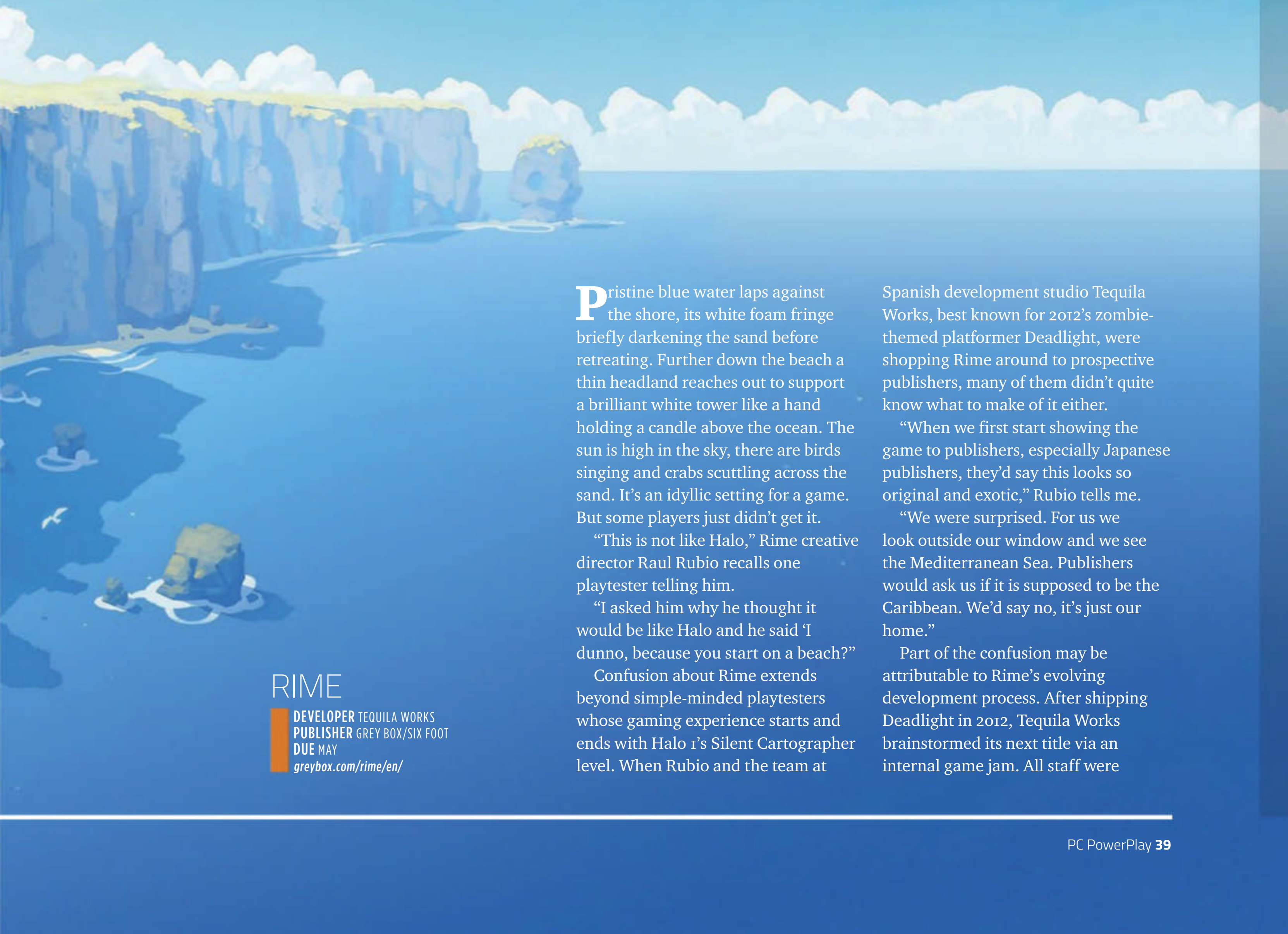
DEVELOPER GABE CUZZILLO
PUBLISHER DEVOLVER DIGITAL
DUE SOON
apeoutgame.com

▲ Imagine, if you can, that renowned designer, Saul Bass, created a jazz infused version of Hotline Miami with a great ape standing in for Jacket. You play a great ape. You want to escape from your procedurally developed prison or locked doors and narrow corridors. You are stronger than the puny humans trying to stop you. Use them as shields or throw them into other humans to create a bloody blast of brass instruments.



STANDING ON A BEACH

From harsh survivalist adventure to gentle, reflective puzzle game, Rime has evolved considerably throughout its development. **DAVID WILDGOOSE** goes back to the island to find out why...



Pristine blue water laps against the shore, its white foam fringe briefly darkening the sand before retreating. Further down the beach a thin headland reaches out to support a brilliant white tower like a hand holding a candle above the ocean. The sun is high in the sky, there are birds singing and crabs scuttling across the sand. It's an idyllic setting for a game. But some players just didn't get it.

"This is not like Halo," Rime creative director Raul Rubio recalls one playtester telling him.

"I asked him why he thought it would be like Halo and he said 'I dunno, because you start on a beach?"

Confusion about Rime extends beyond simple-minded playtesters whose gaming experience starts and ends with Halo 1's Silent Cartographer level. When Rubio and the team at Spanish development studio Tequila Works, best known for 2012's zombie-themed platformer Deadlight, were shopping Rime around to prospective publishers, many of them didn't quite know what to make of it either.

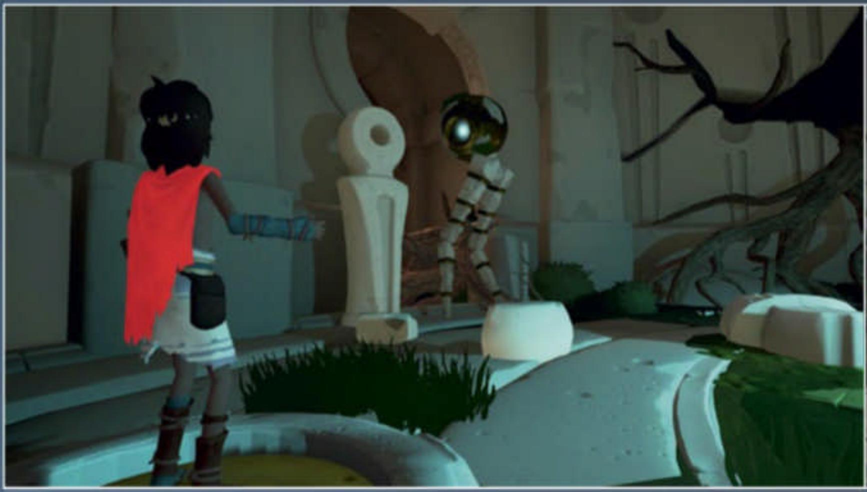
"When we first start showing the game to publishers, especially Japanese publishers, they'd say this looks so original and exotic," Rubio tells me.

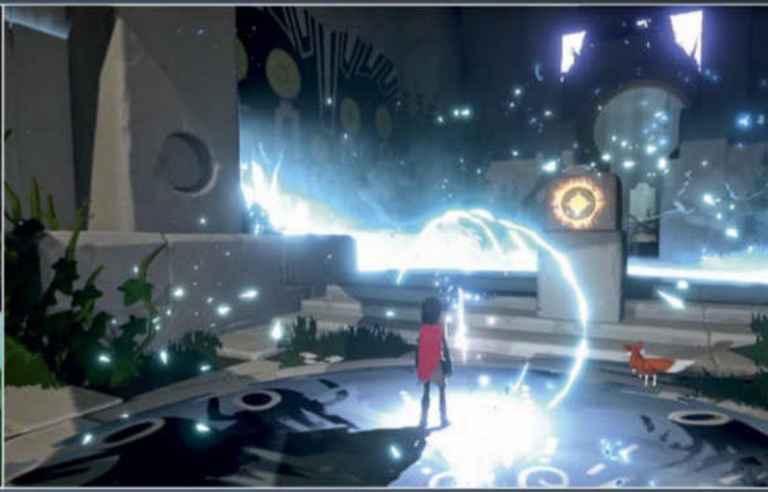
"We were surprised. For us we look outside our window and we see the Mediterranean Sea. Publishers would ask us if it is supposed to be the Caribbean. We'd say no, it's just our home."

Part of the confusion may be attributable to Rime's evolving development process. After shipping Deadlight in 2012, Tequila Works brainstormed its next title via an internal game jam. All staff were

RIME

DEVELOPER TEQUILA WORKS
PUBLISHER GREY BOX/SIX FOOT
DUE MAY
greybox.com/rime/en/





encouraged to play around with their own ideas for prototypes and let their imaginations run wild. The game that would eventually become Rime was born during this process.

SO YOUNG

That initial concept was a survival game. Players had to gather food, find water, hunt wild animals and build shelter. But it wasn't the game Tequila Works really wanted to make. So they began stripping it back, trying to find the core essence of Rime: in the end they found the island, the tower and the castaway. From here they rebuilt the game from, as Rubio describes it, first principles.

"We want to find the extraordinary in ordinary things," says Rubio.

"With Rime we wanted to make something that felt personal. When we were kids and we took summer vacations we would go to the beach. We would have months of adventure and exploring. Remember, this is Spain and so everything is pretty old. But because we were children everything was also new to us. So that's where we started.

"What if we made a game where instead of having a clear goal, we wanted to make the player feel like a kid again? A game where you have no idea what the rules of this new world are and you have to discover it by yourself. So instead of explaining everything, tutorialising everything, telling you what to do and where to go, what if we stranded you on the island for real?"

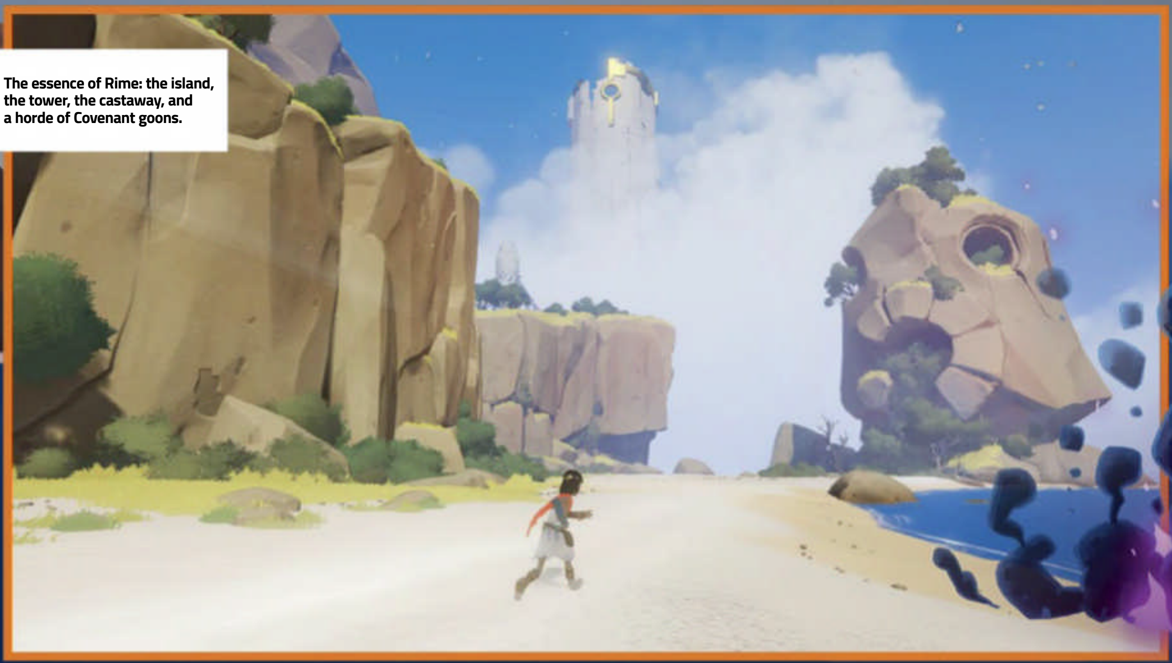
My first few minutes spent playing Rime encapsulate this feeling perfectly. I know I'm on an island, I feel like I'm alone and I have no idea how or why I'm here. All I know is that there's a tower in the distance and I can't get into it.

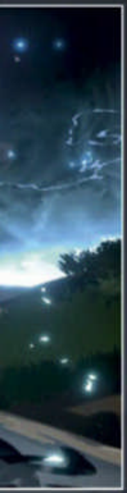
I run around and get a feel for the way my character moves, all gangly limbs that he never quite seems fully in control of. There's a momentum, an eagerness and a clumsiness to his movement that instantly reminds me of my own childhood holidays spent clambering around water-slick rocks at the beach.

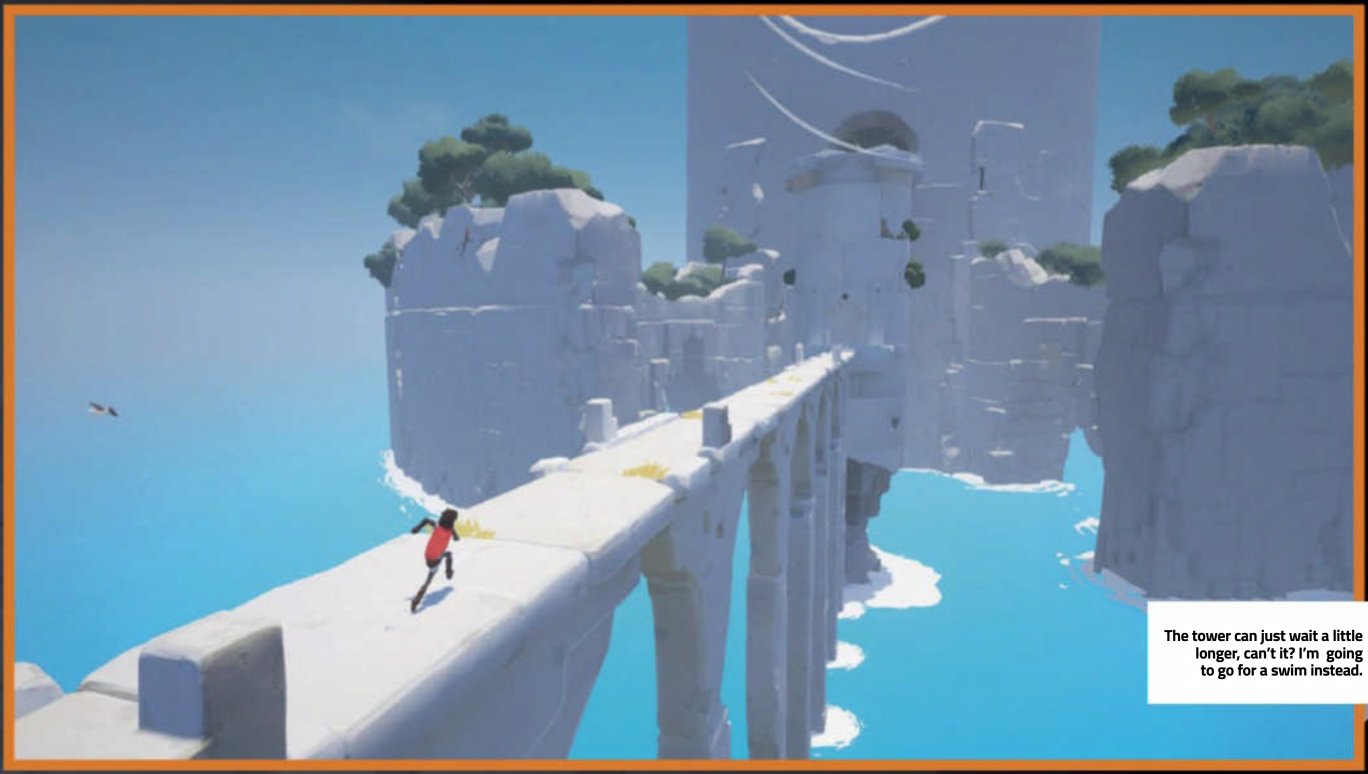
I press a button and he shouts. I do

> " you have no idea what the rules of this new world are and you have to discover them "

The essence of Rime: the island, the tower, the castaway, and a horde of Covenant goons.







The tower can just wait a little longer, can't it? I'm going to go for a swim instead.

this a few times, hearing it echo off the surrounding stone slabs. I feel like I'm lost and alone and calling out in the hope that someone else is there. I shout again, this time near a small green statue of what looks like a monkey. It glows. I find another statue and shout again. It glows too.

I spy a cute little fox and follow it until a few minutes later I find several green statues nearby. I position myself roughly equidistant to them and shout again. All three statues glow and a door opens up in the wall ahead of me.

ANIMAL LOVER

Tequila Works soon found they wanted Rime to be about exploration and discovery. Their original vision of the game's protagonist, the castaway, was of a stereotypical fit, muscled man. As the game changed, so did the player avatar, from capable adult to naive but inquisitive child. And with this change in tone, the whole game shifted in terms of mechanics, from survival to solving puzzles.

"When you're a kid you're not aware of the dangers of the world, right?" says Rubio. "Kids represent fearless exploration. At first we had a stamina system, but it was restrictive when we wanted you to be able to explore everywhere."

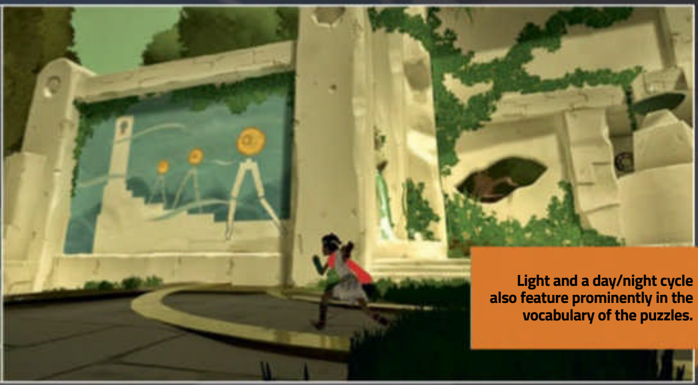
Once the main character was established, Rubio says the core of Rime's gameplay flowed naturally. Kids want to explore so Rime needs large open locations and a traversal system that allows players to run, climb, swim and jump around the island. Kids are curious and like to prod and push at things so Rime should be about environmental puzzles that encourage players to experiment and discover how things work.

Kids also like to make lots of noise, as Rubio, the father of a small child, explains.

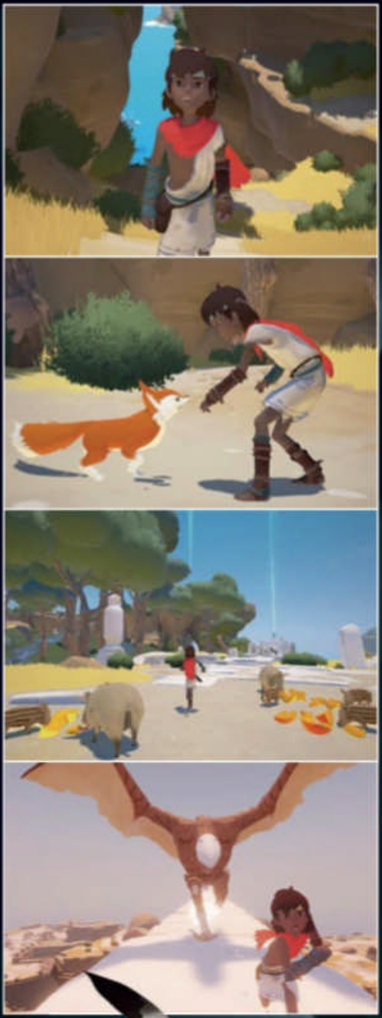
"When we were thinking about all the stuff you could do as a kid, shouting was at the top of the list," he laughs.

"We realised this allowed us to strengthen the player's bond with the kid. Remember, the kid doesn't talk, so a lot of his expressiveness is done through animation. Whether he's feeling happy or sad or scared you can see it because his movements are changing to reflect those feelings.

"The shout is contextual, it changes a lot depending on where you are and what you're doing. Sometimes he's singing, sometimes he's just calling out, other times he's trying to communicate with the fox or urge other creatures



Light and a day/night cycle also feature prominently in the vocabulary of the puzzles.



away. You start to understand how he's feeling, and of course you're hopefully feeling the same way."

I keep exploring the island. I find an apple tree and am able to pick its oversized fruit and carry it around for reasons I don't yet understand. I find a pig and chase it around, never quite able to catch it. I wander into what appear to be the ruins of long-abandoned temples and poke around. I keep shouting.

"In terms of the puzzle mechanics, the shouting works because it helps create a world that feels real but also where magic is possible," Rubio explains.

"When you're shouting at a statue and it causes its hands to start waving and suddenly a door opens, it makes no sense. But it's not just random.

"We took a lot of care in conveying a visual language. All the green elements, like the jade statues, are activated by sound and, more importantly, all of them open something. Everything yellow indicates a physical interaction, so gold objects are things that you can push or pull, for example."

Scattered around the temples I find stone blocks trimmed with gold. I'm able to push and pull them. Some of the blocks hold more green statues and I'm able to move these into positions that allow me to shout and trigger more doors to open. Other blocks are simple weights I can move onto various pressure plates. Others still support golden geometric shapes that when viewed from a particular perspective cause a kind of *trompe l'oeil* effect that triggers environmental changes.

Rubio is keen to stress that the puzzles have been designed so that a player with "no clues, no tutorials, no nothing" is able to solve them. My experience so far suggests that this doesn't mean the puzzles remain simple, but rather it means that the mechanics used to solve them are always consistent.

EVERYTHING FLOWS

Solving each puzzle rewards me with new avenues to explore but it doesn't feel like I'm moving from one puzzle room to the next. My progression through this part of the island feels organic and free of artifical gating. I suspect this is born from the developer's decision over the course of its extensive playtesting to strip away puzzles that didn't add anything to the game or were only there to hold the player up.

"We started playtesting very early in development," says Rubio. "We were removing many of the things we knew worked in games, like the combat, so we were scared about what we were doing.

"Obviously we knew we couldn't please everyone but it was important to know why some players were getting frustrated. One of the important things we learned was from players getting frustrated at not knowing why they were having to solve a certain puzzle. They were having fun exploring and then they were asking what has this puzzle got to do with the rest of the game?

> the shouting works to help create a world that feels real but where magic is possible

"I can tell you that in the beginning they were too complex. Now they're more accessible and also more gratifying. We find players are able to discover the solutions for themselves, whereas in the past they were having to ask us for solutions. That's a big difference."

I just want to point out that I didn't ask for solutions during my play session. Sure, I got completely lost at one point and did restart the demo over again, but I declined all hints. I even solved one puzzle in a way that the PR rep looking over my shoulder mentioned they hadn't even seen.

If you do get stuck though, Rime has a way to help you out. But in keeping with the rest of the game, it does so in a subtle, unobtrusive kind of way.

"When you feel lost, we have the fox," Rubio explains.

The fox acts as a kind of "player guidance system" whose job it is to ensure you are never lost on the island. But it serves a dual purpose in also becoming a narrative element. Rubio's hope is that players will care about the fox and then bond with the fox. And at the same time the fox itself goes from being this wild animal to connecting with the kid and learning to tame those wild instincts.

When I ask why a fox, specifically, or whether it could have been another animal, Rubio says the fox is a reference to the classic French tale The Little Prince by Antoine de Saint-Exupery. In the book, the titular prince comes to Earth and befriends a fox who helps him understand human nature.

"It could have been a dog," he admits.

"But we liked the idea of the fox better. Remember it's a wild animal so it's not going to stay with you all the time. A fox is going to take some interest in the kid, play with him a bit, and then run away. He's not supposed to be your pet."

The fox got me back on track a couple of times. I particularly appreciated how his bright orange fur made him stand out even from distance. There was one moment when I was wandering around and spotted the fox perched on a ledge way over there. I trotted on over and was immediately sucked into examining a brand new puzzle. It felt natural; the fox was beckoning me rather than nagging me about what to do next.

"One thing players enjoy is when they're playing along, they start to feel stuck on a puzzle, and suddenly they see the fox somewhere, and they're like 'Oh, I can see up there! I wonder what that means?'" says Rubio, who I swear was not

A FLOCK OF SEAGULLS

The name Rime comes from the Rime of the Ancient Mariner by Samuel Coleridge. It's an old poem about a sailor who kills an albatross and it curses his whole crew. He's the only one left alive on the ship and he's literally carrying his guilt, which is the origin of the metaphor about having an albatross around one's neck.

Rubio tells me he felt this idea of realising you need to carry on and live with the consequences of your actions described the story of Rime and so they chose the name as a tribute.

I asked him if there's a boss fight against a giant albatross at the end of the game and he laughed loudly before ending the interview.

watching me play his game earlier. (It's true, he's in Madrid; I'm in Sydney.)

"The fox comes and goes," he adds. "We like to think that the fox more often appears when the player needs the fox, not the other way round."

THE WILD ONES

Two of my favourite games of recent years are The Witness and The Talos Principle. Playing through the early areas of Rime reminded me of both of them in some obvious and some not-so-obvious ways. They're all puzzle games, broadly speaking, though they each take a different approach to the type of puzzle they present. They're lonely, isolated experiences intended to allow for plenty of contemplative downtime between epiphanies. But they also possess a central, driving mystery: who built this place, and why?

Rubio tells me he wants the island itself to be a character in the game, perhaps even the main character. He wants the island to tell you a story. Paying attention to the environment is not only an aid to exploration or puzzle-solving, but there's a narrative purpose too.

"I never say that you were invited to the island," he says.

"You are simply here on the island. When you start the game everything is colourful and cheerful and full of life. But once the island knows that you are there, maybe the reaction is not so good. This is not about good or evil, but maybe you are trespassing?"

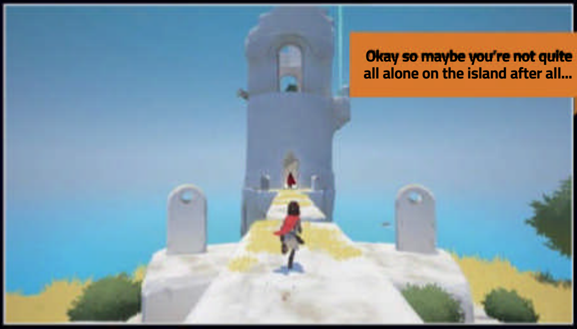
He won't elaborate further. I consider asking him if he ever watched Lost, but I'm trying to push from my mind all thought of John Locke insisting that the island brought him there for a reason.

Rime's island is intriguing, though. There's a weirdness and a sadness to it, not to mention the very occasional glimpse of a cloaked figure watching me off in the distance. I want to know more. I want to spend more time shimmying up Rime's weathered monoliths, scouting its remote caverns, toying with its ancient contraptions.

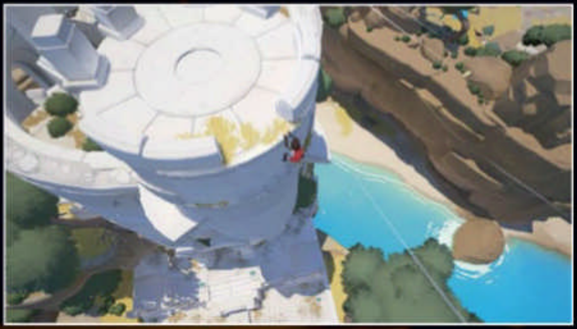
"Telling a story is about how you feel when you experience that story," says Rubio.

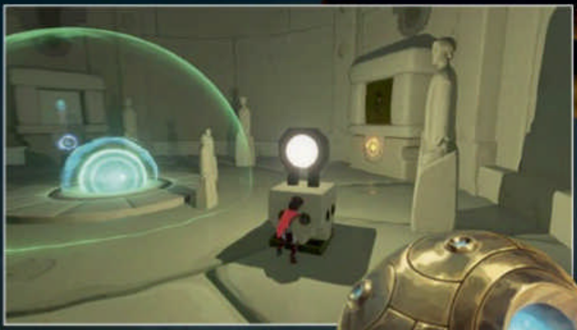
"It's not literally about the words, it's about the message. The best stories in games are not about the lines of dialogue you remember, but about remembering how you felt when you played them."

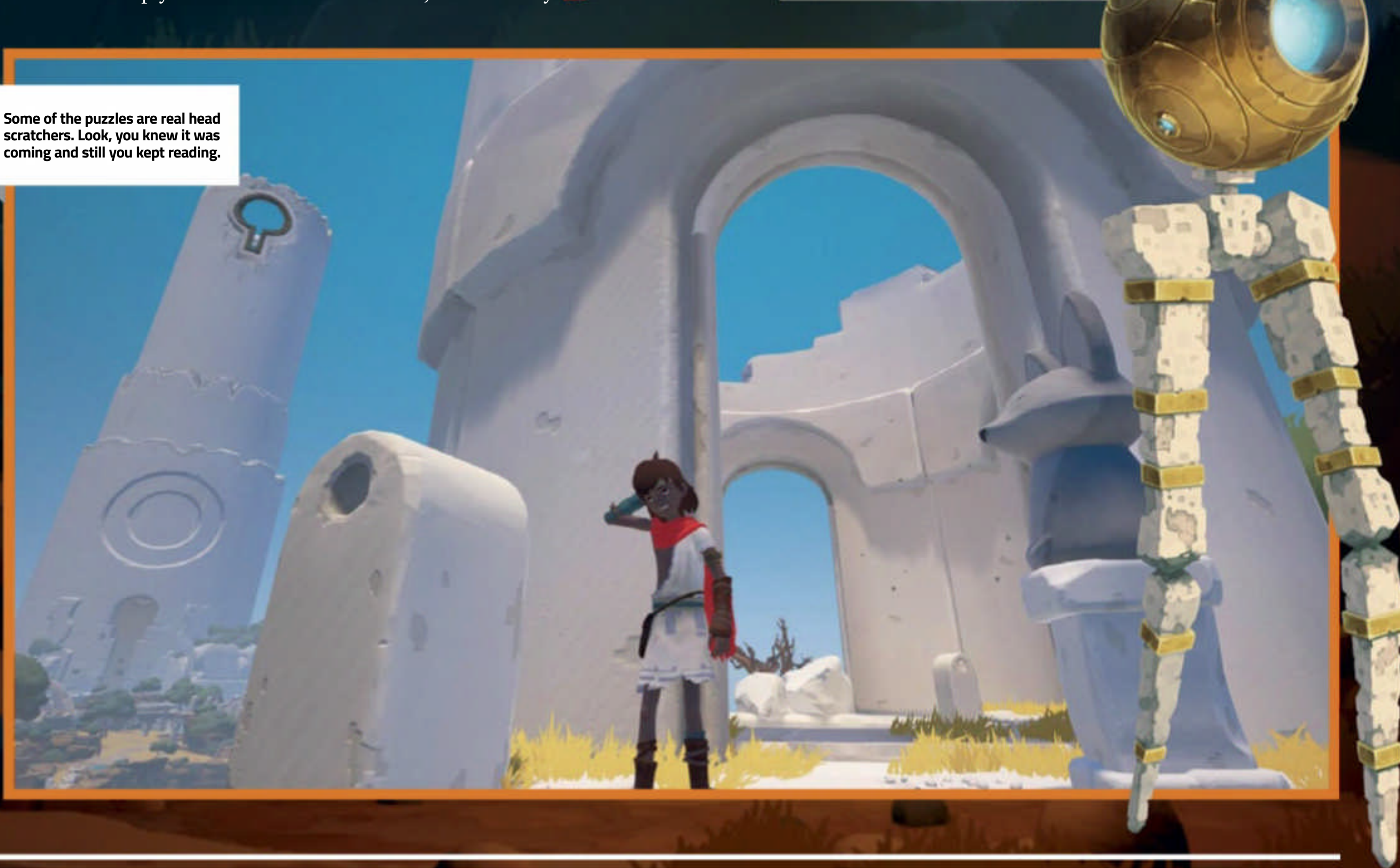
If Rime lives up to expectations, there are three things it'll be remembered for: the island, the tower, the castaway.



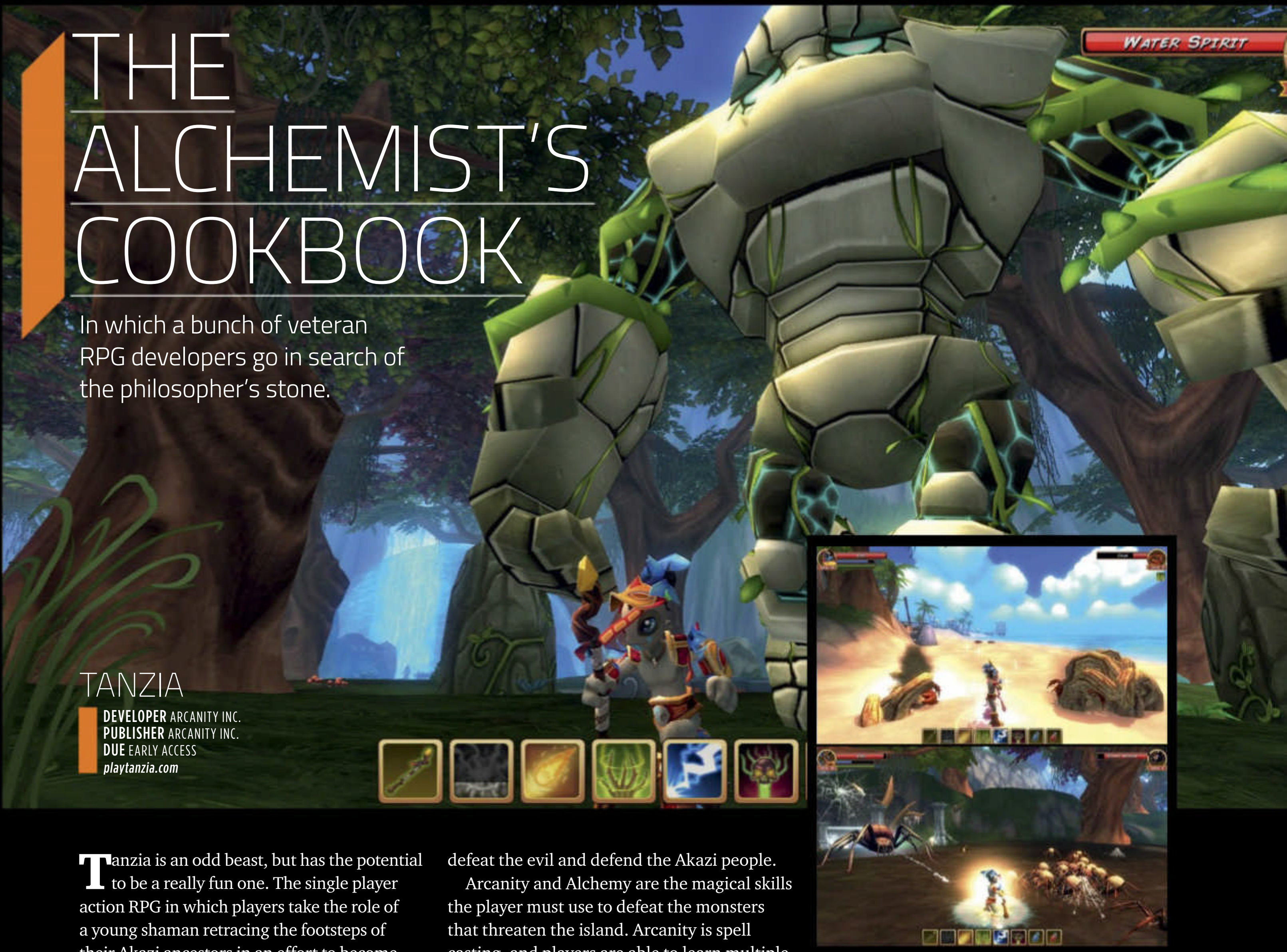
Okay so maybe you're not quite all alone on the island after all...







Some of the puzzles are real head scratchers. Look, you knew it was coming and still you kept reading.



THE ALCHEMIST'S COOKBOOK

In which a bunch of veteran RPG developers go in search of the philosopher's stone.

TANZIA

DEVELOPER ARCANITY INC.
PUBLISHER ARCANITY INC.
DUE EARLY ACCESS
playtanzia.com

Tanzia is an odd beast, but has the potential to be a really fun one. The single player action RPG in which players take the role of a young shaman retracing the footsteps of their Akazi ancestors in an effort to become the greatest shaman ever has a great lineage behind it. The developer, Arcanity Inc. is made up of ex alum of some very prestigious studios, including inXile Entertainment, Sony Online Entertainment, Obsidian Entertainment, Westworld Studios and more, with designers, programmers and artists who have worked on KotOR II, Neverwinter Nights 2, Torment: Tides of Numenera and EverQuest. The pedigree shows in Tanzia, with elements both of old school RPGs and MMOs shining through.

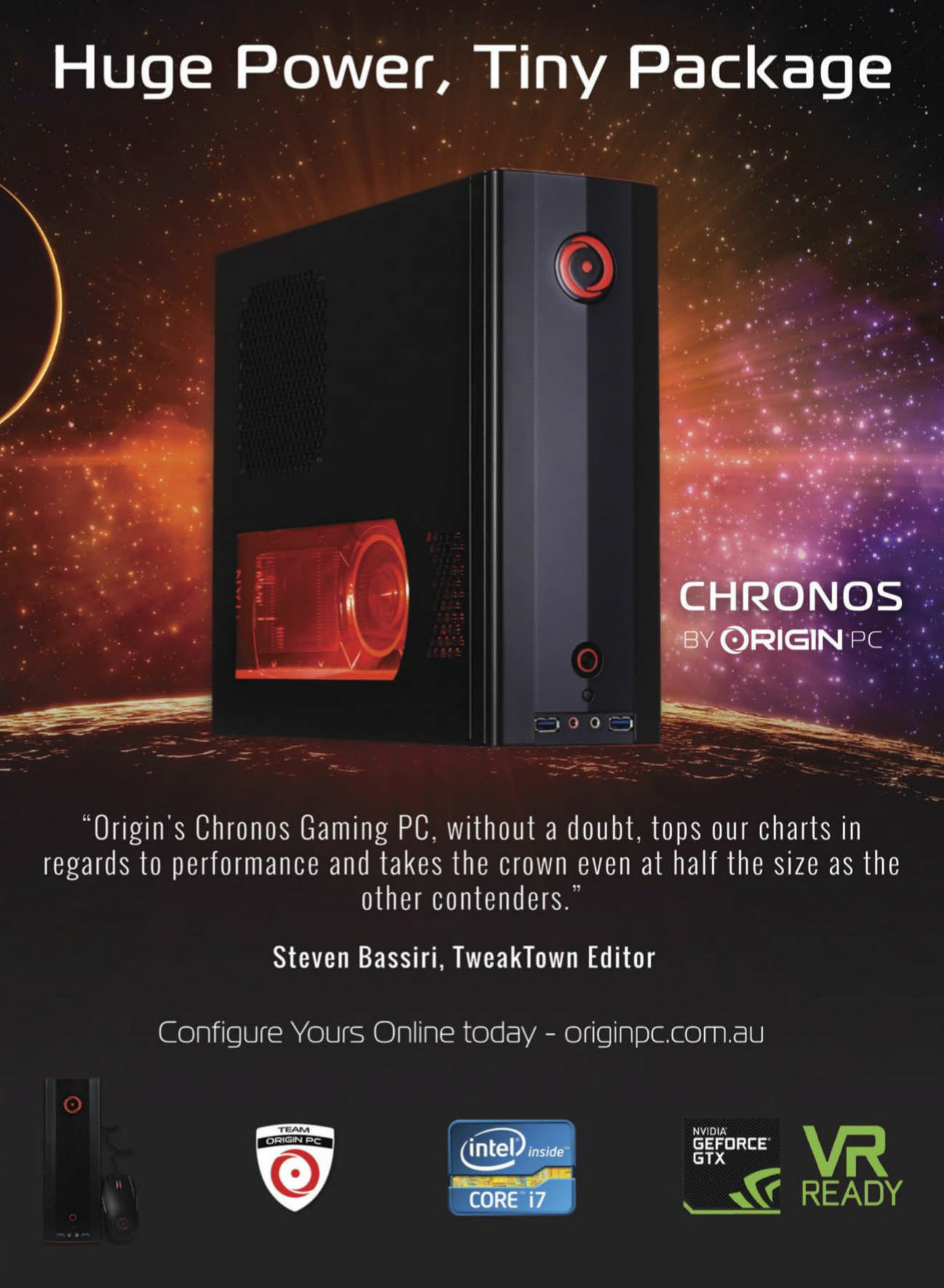
The island of Tanzia is something of a tropical paradise, rendered in lovely bright colours, but beneath the canopy of trees and between the sandy beaches darkness dwells. Evil creatures cover swarm the island under the command of the Skeleton King, the mortal enemy of the player's grandfather (there is quite a lengthy backstory of murder, subterfuge and mystery leading up to the events of the game), and it's up to the player to master the arts of Arcanity and Alchemy to defeat the evil and defend the Akazi people.

Arcanity and Alchemy are the magical skills the player must use to defeat the monsters that threaten the island. Arcanity is spell casting, and players are able to learn multiple spells throughout their adventure. Each spell has a different effect, such as freezing enemies, burning them, exploding for AoE damage, slowing, rooting or pushing enemies away. How these spells are combines really defines how combat plays out. In many ways, larger combats in the game feel more like an old-school MMO like EverQuest than they do an ARPG, with players using movement to gather groups of enemies together so they can be quickly dispatched with an AoE spell, all the while keeping larger enemies at bat with some form of crowd control. It takes a little getting used to, but the constant need for movement either to round up smaller creatures to kill them efficiently, or to avoid enemies while spell cooldowns reset makes the game feel really dynamic.

Alchemy is something of a support skill, with the player being able to craft and use potions to heal, confer brief invulnerability, increase spellcasting power and what have you. Effectively combining alchemical potions and spells lends an aura of resource management to proceedings and feels both natural and powerful.

The island of Tanzia is open right from the beginning of the game without any kind of artificial level gating. Players are free to go anywhere at any time, but that does not make all of the content immediately easily accessible. While players may be able to travel anywhere, some locations are definitely too tough for a neophyte shaman to tackle, making exploring them tantamount to suicide if you haven't levelled up and found some good gear.

Tanzia is currently in early access but is already showing a good degree of polish (aside from the combat notification font that looks something like comic sans). It plays well, looks good and sounds great. There still isn't a set release date, but we'd expect to be able to review the game within the next three or four months. *TAVISH FORREST* PC



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BY ORIGIN PC

“Origin's Chronos Gaming PC, without a doubt, tops our charts in regards to performance and takes the crown even at half the size as the other contenders.”

Steven Bassiri, TweakTown Editor

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intel inside
CORE i7
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VR READY

MARVEL VS. CAPCOM: INFINITE

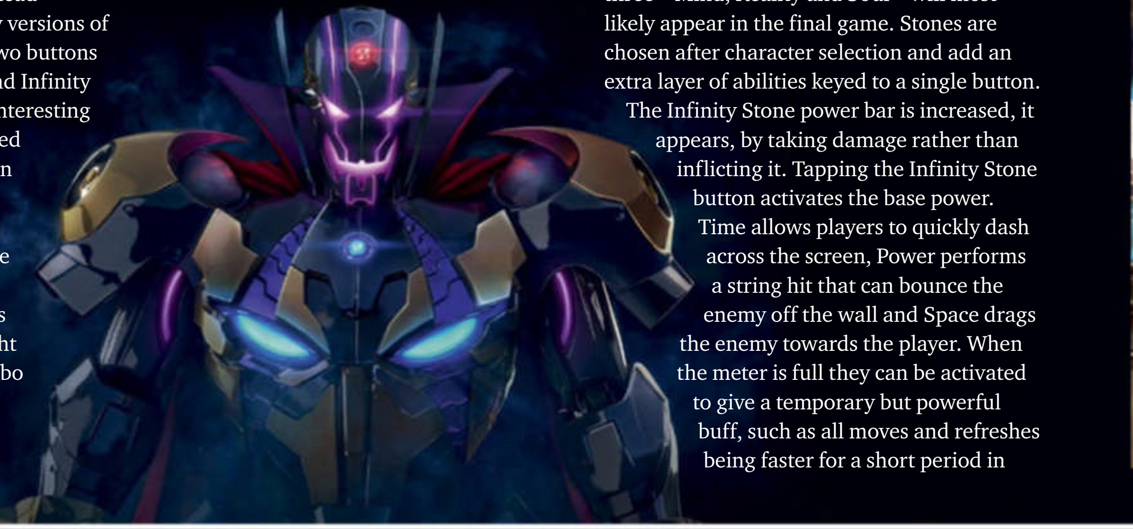
Capcom fighting games sure know how to push our buttons - and this is no different.

DEVELOPER CAPCOM
PUBLISHER CAPCOM
DUE SEPTEMBER 19
marvel.com/games/179/marvel_vs_capcom_infinite

While the Marvel vs Capcom series, since the second iteration, has featured a simplified combat system that uses four buttons rather than the more typical six seen in other Capcom fighting games, to make the series more appealing to newcomers to fighting games, Marvel vs Capcom: Infinite has taken a new approach to accessibility. Instead of featuring the light, medium and heavy attacks that are all but synonymous with Capcom fighters, Infinite instead restricts attacks to light and heavy versions of punches and kicks with another two buttons controlling character switching and Infinity Stone activation. It makes for an interesting change that takes some getting used to but has real potential to make an extremely fun fighting game for newcomers and veterans alike.

Each character, 13 of whom have been announced so far, is capable of performing automatic as well as manual combos, with multiple light punches performing a simple combo that includes a pop-up, a few air strikes and a final spike. The four attack buttons can be comboed together in multiple ways both on the ground and in the air, with down and heavy punch being a universal pop-up move allowing for some fun juggles. Rather than sticking to the traditional inputs for special moves, all characters have the majority, if not all of their special moves as well as super moves keyed to quarter circle movements. In the roster so far there are no half circle or charge moves, and it's unlikely any new characters announced will deviate from this norm. From our hands on this definitely made it easy to pick up and play any character in the roster, but thanks to different speeds, ranges and effects of special moves, each still felt unique in its own way.

The other big new addition to the game, in keeping with the Marvel cinematic universe is the introduction of Infinity Stones. Only three were available in the code we played – Time, Space and Power – but we assume the other three – Mind, Reality and Soul – will most likely appear in the final game. Stones are chosen after character selection and add an extra layer of abilities keyed to a single button. The Infinity Stone power bar is increased, it appears, by taking damage rather than inflicting it. Tapping the Infinity Stone button activates the base power. Time allows players to quickly dash across the screen, Power performs a string hit that can bounce the enemy off the wall and Space drags the enemy towards the player. When the meter is full they can be activated to give a temporary but powerful buff, such as all moves and refreshes being faster for a short period in



HAWKEYE
20
3

CAPTAIN AMERICA
21
3
MAX 4

MORRIGAN
IRON MAN
CAPTAIN MARVEL
RYU
POWER
3
0
TIME
© CAPCOM © CAPCOM U.S.A.

HULK
CHRIS
72
STRIDER HIRYU
3
MAX 4

> it's fair to assume that all of the cinematic Guardians of the Galaxy will appear

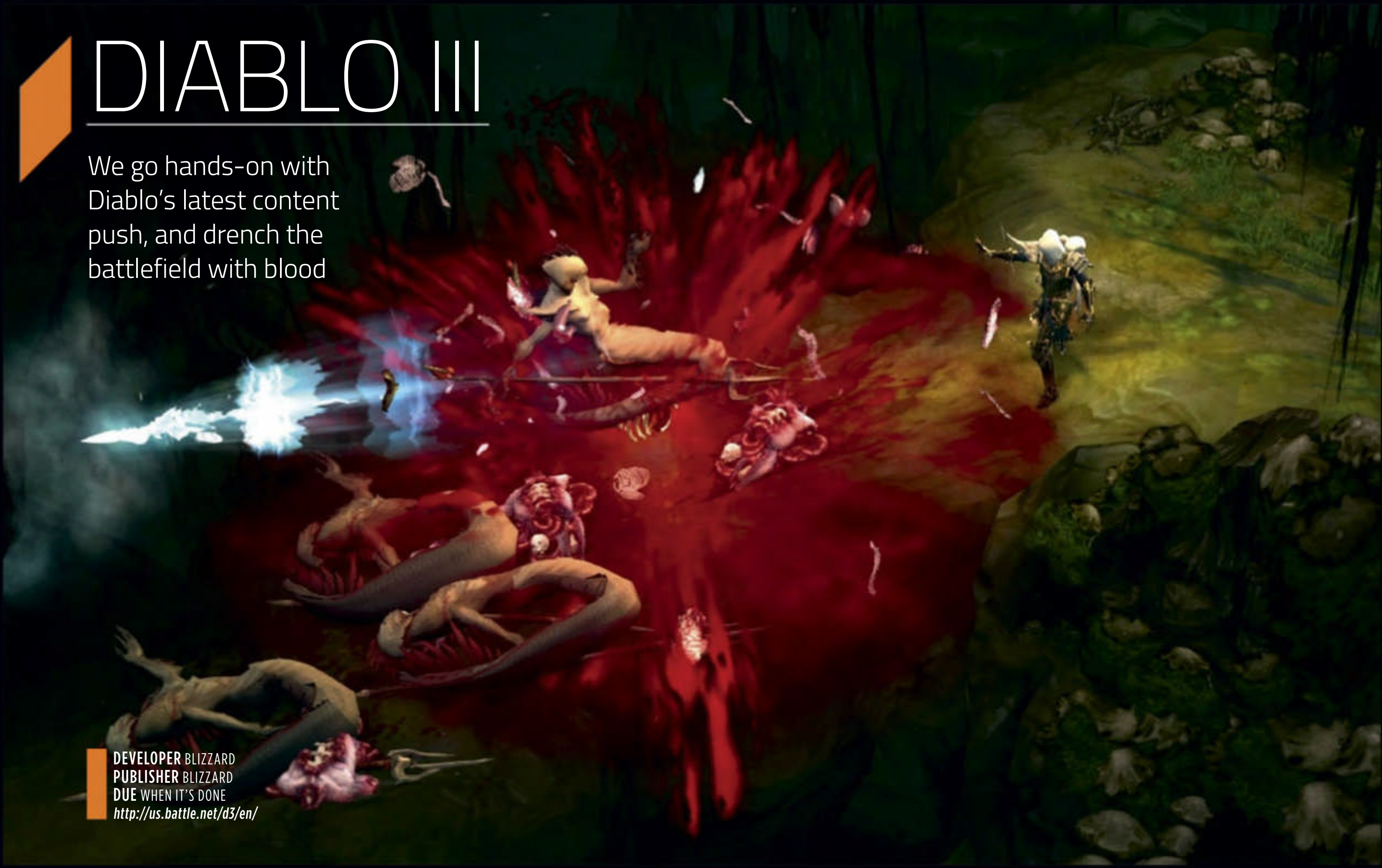
the case of Time, or confining the opponent in a box in the case of Space.

We're not sure how many characters will appear in the final roster as yet, but given the fact that Rocket Raccoon has been announced, it's fair to assume that most, if not all of the cinematic Guardians of the Galaxy will appear, and with the appearance of Hawkeye, Iron Man, Hulk, Thor and Captain America, the other (cinematic) Avengers will probably make an appearance as well. As for Capcom characters, only two Steeties fighters are currently in the roster – Ryu and Chun Li – so more a definitely on the way, as are some Darkstalkers monsters to keep Morrigan from getting lonely, and given the history of the franchise, Captain Commando and some of his compatriots will most likely make a comeback as well. We look forward to seeing some of the surprise additions that every version seems to include – fingers crossed for Bayonetta, 2B and FBI Special Agent Francis York Morgan.

DANIEL WILKS PC

DIABLO III

We go hands-on with Diablo's latest content push, and drench the battlefield with blood



DEVELOPER BLIZZARD
PUBLISHER BLIZZARD
DUE WHEN IT'S DONE
http://us.battle.net/d3/en/

It's been five years since Diablo III was released.

That's insane. Isn't that insane? It seems like only yesterday the long-awaited sequel busted out of the doors without enough server capacity to handle launch loads. Ah, a simpler time.

In all seriousness, Blizzard has done a fairly solid job of keeping Diablo updated with enough content to satisfy the hungry hoards – there have been enough changes that it's hardly the same game. We got a chance at the Game Developer's Conference in San Francisco to sample its next update: Rise of the Necromancer.

Blizzard already showed off a character build last year at Blizzcon of a female, ranged Necromancer, a character introduced in Diablo II but not available until now in the sequel. This time we were able to go hands-on with a male, melee version of the character.

One of the main arbiters of enjoyment in Diablo is the interlocking relationship between the character's skills, the powers needed to fuel them and any blockers or cooldowns the game puts in your way. If that relationship doesn't work, then you're either knocking down fools left and right too quickly or relying too much on one or two active skills.

If nothing else, the melee necromancer gets the thematic consistency just right with regard to that relationship. That means there's a lot of blood.

The melee weapon we used as a huge scythe, dealing damage in a wide arc that also restores Essence, the Necromancer's force used to fuel active skills. On the right mouse button we were given a Blood Nova – a huge area of effect spell that covers your enemies in blood.

Tasty. Except that it drains your own life force. Not so tasty.

Thankfully, other active skills make up for that. Another skill, Golem, drains the blood from nearby corpses to damage them and restore your health. Devour allows you to consume corpses to restore your Essence, and Leech does something similar, cursing nearby enemies so their life force transfers to you and your allies.

The skills come with nice, fluid animations and the relationship between spending HP to kill and using Essence to retrieve it keeps you on your toes constantly. It's fun to drench your enemies with blood then quickly watch the lifeforce from those corpses drip back into your own body. It makes you feel powerful, in a very morbid way.

There's also a big emphasis on pets with the Necromancer, and not just in a cosmetic sense like some other heroes. The Necromancer has access to a range of creatures who fight alongside you and can complement your skills – you can access spells that cause some massive damage with a pet, but we didn't have access to those.

Look, five years in and Diablo isn't going to reinvent the wheel here. The Necromancer is a

> ❝ look, five years in and Diablo isn't going to reinvent the wheel here ❞

solid addition to a game that has found a good balance between its moving parts – the most Blizzard can hope to do here is provide a little more cosmetic fun on top of gameplay that has been mostly nailed down for a few years.

In that way, it succeeds. The dark, brooding aesthetic of the Necromancer and the blood-themed skills all complement each other and keep you constantly moving between them, and there's something intensely satisfying about seeing a battlefield covered in blood. Whether you're playing melee or a ranged Necromancer, Diablo fans will have fun here retreading ground in old areas and tackling them in new ways.

There's also some new content coming with the Necromancer including some new levels, along with legendary items for the new build, although Blizzard is quick to say this isn't a full expansion.

What's more to say? If you like Diablo, you'll like the Necromancer. They have this type of gameplay and character development down to a fine art. But there is a sense of timeliness here – playing the same content with a new character is all well and good, but it's still the same content. The same levels. The same enemies. The same story. The same… everything.

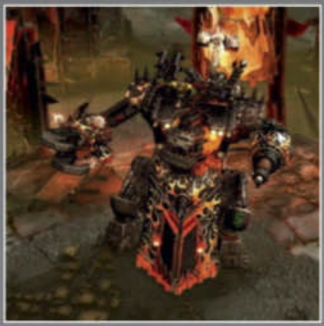
"We're just focused on the Necromancer today," Blizzard told a group of us at our preview event.

That might do for now. But pretty soon, Blizzard is going to have to move on. Let's hope they take us somewhere new when they do.

ANDREW WHITEHEAD PC

Games 262

YOUR GUIDE TO PC GAMES



Workshopping

A grim dark future

Sequels are a funny thing, and it's a rather big sequel that is our lead review this month.

Dawn of War III is part of very successful franchise, from a tried and true developer. Relic is in fact one of the better Games Workshop license partners in existence; between DoW and the excellent Space Marine, few companies are as capable as taking GW's quintessentially tabletop experience, and turning it into a viable and entertaining video game.

It's just that... Well, Dawn of War III is a backwards step. More than that, it really seems like GW just isn't talking with its licensees. Both Vermtintide and Total War: Warhammer now depict a setting that doesn't exist, and DoWIII seems a massive missed opportunity, given that an 8th edition of the tabletop rules is coming out. Mind, you given that GW seems to be handing out development rights every person and their dog, it's hardly surprising.

Oh, and definitely read this month's Hagionaut column - if you love Warhammer video games, it'll be a treat!

David Hollingworth
Digital Editor

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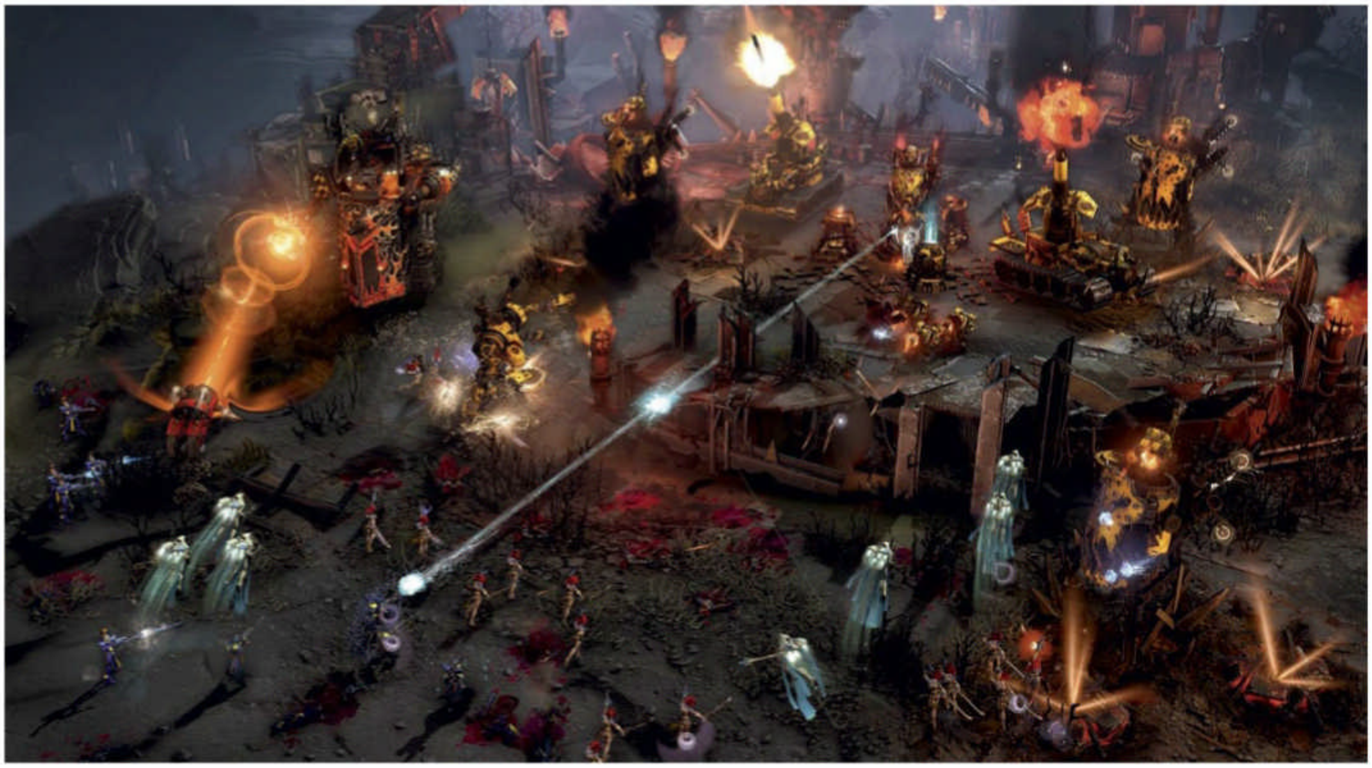
65 Little Nightmares

POWERED BY REPUBLIC OF GAMERS

SCORING SYSTEM | PCPP scores its games on a 1 to 10 scale. The higher, the better – though 10 is by no means a "perfect" game. We're not convinced such a thing exists, so consider a 10 a masterpiece of PC gaming, despite its inevitable flaws. A 5 is a decidedly average game; one that doesn't excel in any particular area, without being an affront to our senses – the ultimate in mediocrity. Below this, you'll start to find the games our reviewers suffered an aneurysm getting through; above it, the titles truly worth your time and money. And remember: a score is only a vague indication of quality. Always read the full review for the definitive opinion!

WE PLAY ON:
ALIENWARE GAME VICTORIOUS
SAMSUNG 950 PRO



Dawn of War III

Relic gives us an opportunity embrace heresy... or reject it

DEVELOPER RELIC ENTERTAINMENT
PUBLISHER SEGA
PRICE $59.99
AVAILABLE AT STEAM
dawnofwar.com

FORDHAM: Videogames based on Warhammer 40,000 might have begun all the way back in 1992 with Space Crusade, but it took 12 years to find a truly winning formula in 2004's Dawn of War.

Sadly, for 40K fans, that "winning formula" meant letting go of a faithful, digital reconstruction of the table-top game, and instead shoving Games Workshop's IP into an RTS.

Full credit to Relic: the first Dawn of War still kept plenty of 40K flavour. Squads had individual upgrade options, the graphics were visually faithful, and by the time the last expansion (Soulstorm) came out in 2008, most of the core races had made an appearance, to varying degrees of authenticity.

But real fans know that 40K is about squads and gear loadouts and customising an army just-so. And unless you're playing the Epic variant, the tabletop game has a focus that's more intimate than the average PC RTS.

Relic seemed to know this as well, and so Dawn of War 2 changed the formula. Base-building and rushing were out, and keeping individual Space Marines alive for the entire singleplayer campaign was in. RTS fans bemoaned the loss of bases and upgrades and resource-points, while 40K fans - especially those whose tabletop sessions only used a few dozen miniatures - found the new scale and focus on individual units much more familiar.

Now here we are again for Dawn of War 3. The base-building and in-mission tech upgrades are back, and the whole thing immediately feels more RTS-like. Campaign missions start with an Elite-unit focused opening section, and then morph into a build-your-economy-and-smash rush-fest.

The game leaves us with two really big questions. One: is this just the original Dawn of War all over again with fewer aliens and prettier graphics? And two: has the return to a more standard RTS structure (with considerable MOBA influence, as we shall see) actually made Dawn of War III a worse Warhammer 40,000 experience? David?

HOLLINGWORTH: Well, look at it this way - I played Dawn of War II to completion. I loved the more open nature of the campaign, and the time-critical nature of many of the missions. The gameplay actually felt more like the source material, both mechanically and thematically. And as you say, it was just a more intimate experience.

> base-building and tech upgrades are back, and immediately feels more RTS-like

Dawn of War III, on the other hand, is turning out - for me at least - to feel much more like a chore to play. The way the campaign forces you to play each of the three races in turn (instead of having a campaign for each) is annoying, as basically I'm still Space Marine fanboy at heart, and really that's my buy-in for Dawns of War. Orks aren't for playing, dammit, they're for shooting into tiny green pieces! And even then, the campaign is completely linear, which is a real let down from the previous title.

But what really sticks in my Emperor-loving craw is the backwards step (as they say on the Twits, don't @ me) to classic RTS gameplay.

It's still a good RTS - Relic remains a master of the genre - but it really doesn't gel with the setting, in my opinion. Sure, each race retains its strengths and weaknesses, and a well-placed Marine Tactical Squad is still one of the most effective units, but making them feel so faceless and expendable just isn't right.

But, as you know, I am a 40k tragic. As someone less wedded to the background, how are you finding the game?

FORDHAM: Okay here's the thing about PC. If I get up one day and decide I want to play a game like Dawn of War… I play Dawn of War. It's right there, in my Steam list. Even if I don't have it installed right now, it's never more than a couple of clicks (and sure, nine hours of ADSL "speeds") away.

Meanwhile, DOW2 is Dawn of War except more like tabletop 40K… kinda. But it's different, is the point. So if I want to play Dawn of War except with squads and a branching campaign, then I play DOW2.

Why do I want to play Dawn of War III? Because it has better graphics than the original? Sure, except it's still the same ART, and the only thing that's really changed are the special effects. Apart from that… why not just play DOW?

Your point about the way the campaign makes the player switch sides constantly is really important, actually. Because RTS is all about factionalism. Choose your race and learn the meta, discover your preferred play style and perfect it. Bouncing from race to race basically ensures that I don't care about anything that happens in the campaign's story.

With DOW there was a joy in building a big army and unleashing WAAAGH, but now we have these Elite units. Yes, an Elite can get swarmed if it's left without backup, but army construction now is less "hmn, he's focusing on air so I will go anti-air but with stealth" and more "gotta capture all the Elite points so I can summon in all my Elites and then I will attack with my Elites while spamming whatever other units I can be bothered building." Yeah okay, there's a bit more strategy to it than that, but I'm finding the Elite way, way too dominant in each battle.

Or maybe the campaign is just a big tutorial for multiplayer. Because that's where all the "new" stuff is, and where Relic has decided to include a bunch of MOBA-like systems for… some reason?

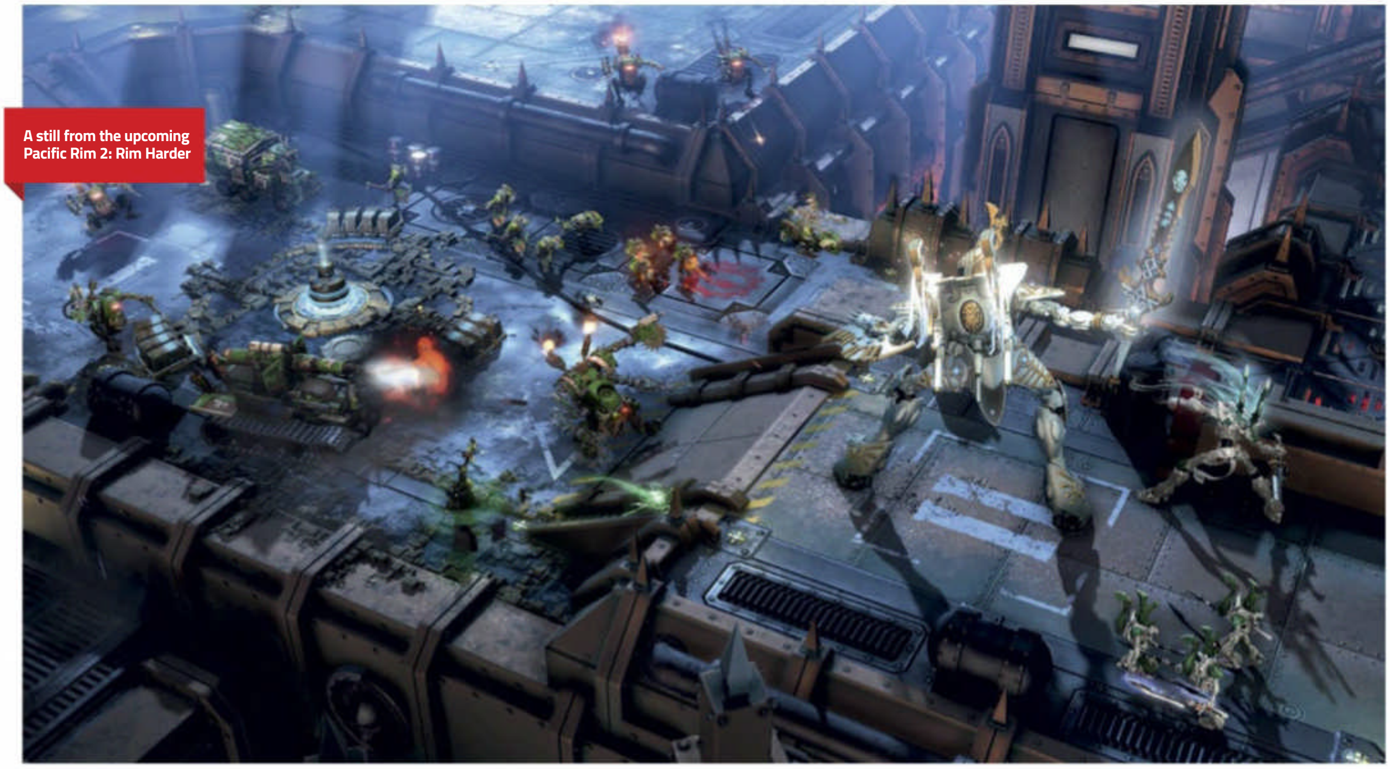
Overall I find the whole thing confused. DOW2, for non 40K-tragics, was interesting because it took ideas from Company of Heroes (especially cover) and integrated them into the Warhammer 40K universe in a way that made perfect sense. Hell, the Games Workshop artists are always drawing ruined cities a la the Fall of Berlin, so the way the whole system works is probably inspired, to some extent, by WWII-style combat.

But now we're back in a traditional RTS… except the multiplayer is weird. Do you get what they're going for with the turrets and the shield generators and what not?

HOLLINGWORTH: Well, it's kind of circular. MOBAs sprang out of RTS games back in the day, so it's inevitable that MOBA gameplay concepts are now finding their way back into RTS titles.

FORDHAM: Is it though?
DAVID: Yes.
FORDHAM: Okay fair enough.

HOLLINGWORTH: Anyway, in Dawn of War III's multiplayer, the game focuses on the same resource-grabbing of the original - you capture these points, and then build on defences and other upgrades that increase the rate of resource acquisition. This engenders an aggressive play style, wherein you can



A still from the upcoming Pacific Rim 2: Rim Harder

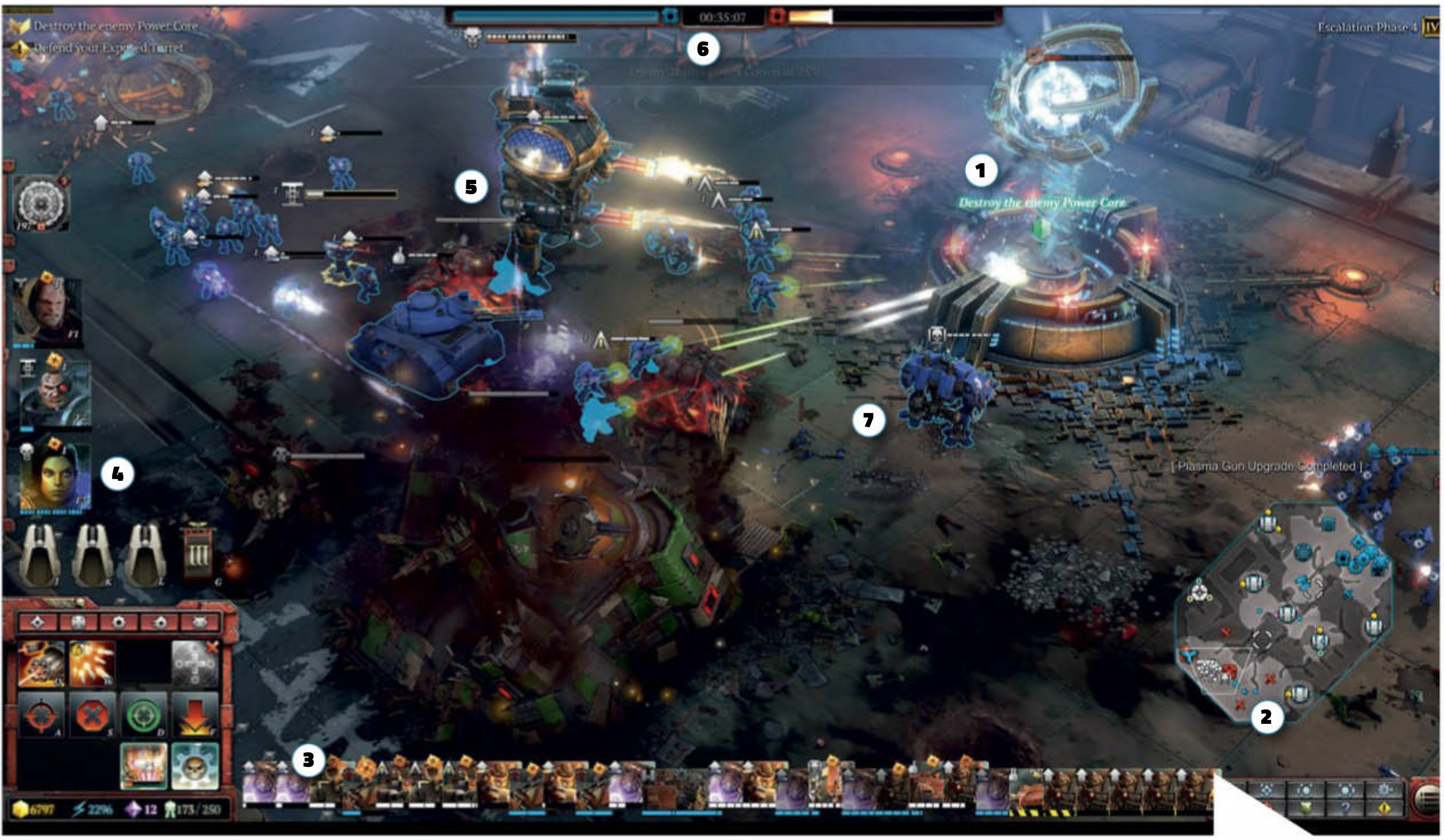
SEQUENCE

SCRIPTED FOR YOUR PLEASURE

1. Each race campaign starts with a single Elite unit, who is quickly joined by low-level grunts.

2. Soon enough, you're building a base and churning cannon fodder, before going off in pursuit of the enemy.

2. In the first Ork mission, the greenskins must secure a giant cannon... by firing it until it "jumps" back to their base.


Destroy the enemy Power Core
Defend your Exposed Turret
00:35:07
Escalation Phase 4
6
1
Destroy the enemy Power Core
5
4
7
[Plasma Gun Upgrade Completed]
3
2
6797
2296
12
173 / 250

The units have a hit of 5-6 and +1 penetration

never afford to sit back and defend. In fact, there are very few defensive upgrades at all.

The Power-core system further pushes you onto the attack, with three phased objectives on every map - it's not about destroying the enemy, but rather destroying these objectives. First there's a shield generator, then the turret it's defending, and finally the power core. And, again, this dominates the strategy you use to aim for victory. No matter what kind of army you build toward, it's going to need to attack these certain points.

It's straight out of MOBAs, wherein you'll need to destroy a gate to get to a tower to get to a widget or whatever. I can see the focus that it gives to multiplayer, always ensuring that the action is funnelled to certain locations, but at the same time it seems to really take a lot of player agency out of the equation.

You know, I really wanted to like this game a lot more, but the more I play it, and write about it, the less I realise that it may in fact be my least favourite Dawn of War game - in fact, it may not even be that great to begin with.

FORDHAM: RTS is a very, very challenging genre for a developer to work in, these days. As far as I can tell, you either have to be Blizzard or you have to build some kind of ultra-epic scale Supreme Commander thing that's half-game, half-DirectX 12 tech showcase. You know, like Ashes of the Singularity.

Teasing aside, the "ants dance" games (so-called because of the zoomable scale which sometimes reduces units to tiny clumps of pixels) are great for the strategic player because wars are not won or lost by cheesing six early-game units or tech-racing to Carriers or whatever. They're like real wars, where territory control matters, and the tide of war ebbs and flows.

After Dawns of War I and II, that's the kind of thing I'd be more excited to play. The last Epic-scale 40K game was Final Liberation, which had pretty good FMV and nothing much else. Meanwhile, we're stuck with this.

One of the core ironies of Dawn of War is that, to the uneducated, it could come across as a "rip off" of StarCraft II. That is, heavily scripted singleplayer missions relying on moving troops to different regions on a map to trigger the next script.

40K OF LEGENDS

1. The objective of every multiplayer match is to destroy this power core, MOBA-style

2. Maps have lanes and are symmetrical for tactical clarity

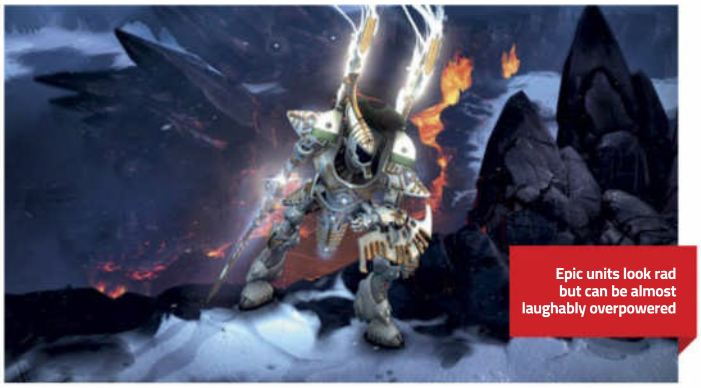
3. Units can be selected from cards, icons show status

4. Three Elite units spawn in once sufficient points are accrued

5. It's definitely spectacular, but is it 40K?

6. Relative team strengths are display here, just like a MOBA

7. I keep forgetting Dreadnaughts are actually a melee unit...



Epic units look rad but can be almost laughably overpowered

Why do all Eldar buildings look like silly hats?

It's ironic of course because StarCraft has always been a shamelessly-transparent "substantial variation" on Warhammer 40K, and yet it spawned an entire TV sub-industry in South Korea, while Dawn of War continues to grapple with its own identity.

Playing DOW3 skirmishes just makes me TIRED. I'm tired of having to first spawn a squad of Assault Marines and then click on them and choose a squad-level upgrade. I'm tired of going through the same motions of building structures, then upgrading them, then getting ready to bring in some cool late-game unit, then realising I'm at my army cap so I have to send a bunch of dudes on a suicide mission to free up supply…

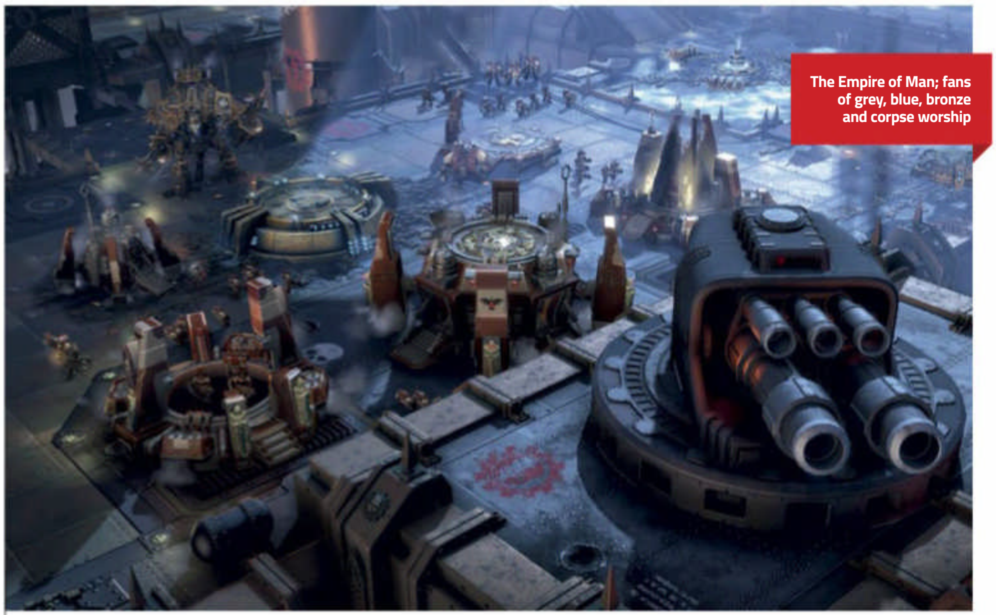
And I don't think I'm holding this game to some kind of extra super-high standard, just because it has a 40K theme. Any RTS released in 2017 that plays like this deserves at least a little of the ol' side-eye.

I'm really struggling to come up with something notable, something wholly good, about the game. David can you help me out here? Is there anything about it you actually like?

HOLLINGWORTH: I have to be honest, once I'm done with this review, I'm not going to go back to it. It looks fantastic, and I will say that the persistent carnage of dead bodies and wreckage is visually appealing, but as an RTS it's very by the numbers, and as a Warhammer 40,000 game it seems to more or less miss that mark too.

Sure, smashing a bunch of orks into mist with a Knight is fun, but it's almost too much fun. The epic units are almost laughably powerful, in a way that units in the actual game - which I can never get away from, I know - never really are. There may be a solid sense of traditional rock-paper-scissor with the lower end units, but the entry into a battle of, for instance, an Eldar Wraithknight completely changes the battlescape.

A lot of Warhammer 40,000 has always leaned towards the Rule of Cool, but this is too far in that direction. I just can't get into it.



The Empire of Man; fans of grey, blue, bronze and corpse worship

> Starcraft spawned an industry in South Korea while Dawn of War grapples with its identity

WHY SHOULD I CARE?

+ You must own all the 40K games

+ You want to see a Terminator do a backflip

+ You're hankering for a 40K MOBA

+ You're a servant of Chaos

FORDHAM: There are some good concepts in here. The game is well-balanced out of the box, and the Doctrine system - essentially tweaks for the Elites - lets you tailor each faction to your own preferred play-style.

Weirdly I've found the EARLY game is more varied, while the late game devolves into a slog even when your opponent has obviously lost the will to win. This is more-or-less the opposite of most games that have only a handful of possible openings, but can get pretty wild toward the end of the match. There doesn't seem to be a way to snatch victory from the jaws of defeat.

The game is full of niggles, from weird animations to odd lore violations (Steam reviewers seem particularly hung up on the way a Librarian in Terminator armour will occasionally do actual backflips) but at the end of the day the biggest drawback of Dawn of War III is that the first two games still exist.

Sometimes, a developer will bring out a "new" game that's almost identical to the old, but adds enough stuff that once you get over whingeing about paying for everything again, you realise you can never go back to the original.

StarCraft II is very cleverly designed to be different enough from StarCraft, so much so that I'm looking forward to the HD "remake" and will play it. In contrast, Red Alert 2 added so much to the formula (especially garrisoning buildings) that Red Alert lost all its 900-Mammoth-Tank-spam charm.

Dawn of War III isn't a combination of all the good parts of the first two games. Yet neither is it interestingly different. It adds bases, sure, but it removes so much more.

The equation should have been simple: Base-building plus bigger armies plus persistent units and a branching campaign. And maybe cover and terrain deformation, and anal adherence to 40K law. That's the game I wanted.

Unfortunately it's not the game we got. Perhaps DOW3 will one day be redeemed by expansions and enhancements. But right now, it's the third Warhammer 40K RTS in much more than name only.

ANTHONY FORDHAM and DAVID HOLLINGWORTH

OR TRY THIS:

DAWN OF WAR
2004, RELIC
▲ Includes all major races
▼ Feels dated

DAWN OF WAR 2
2009, RELIC
▲ Feels more like 40K
▼ No bases or big armies

FINAL LIBERATION
1997, HOLISTICS
▲ Epic scale battles
▼ Turn-based and ugly

VERDICT:

Plays like MOBA, smells like Heresy

5

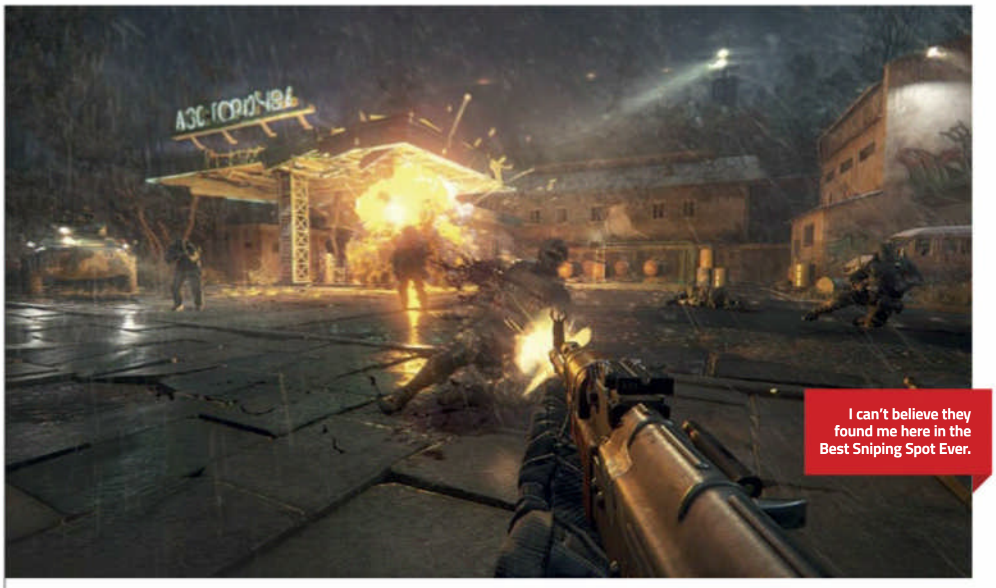
Sniper: Ghost Warrior 3

One shot, two kills

DEVELOPER CI GAMES
PUBLISHER CI GAMES
PRICE $49.99
AVAILABLE AT STEAM
sniperghostwarrior3.com

There is something alluring about sniping in games if you have the patience for it. Lining up the perfect shot, making incremental adjustments to account for distance and weather and then finally pulling the trigger for a clean kill is a great feeling, and one that many games have done well over the years. Sniper: Ghost Warrior 3 handles sniping very well. Taking aim, slowing down time (or holding your breath if you want to use the in-game terminology), making any adjustments demanded by difficulty (as the difficulty gets higher so do the requirements for lining up a shot) and then making your kill is extremely satisfying and well handled. Unfortunately, pretty much everything else in the game is either average or lacklustre.

The previous two games in the series were criticised for being crushingly linear, so this time around Polish developer CI Games has instead brought the game into an open world - a separatist held Georgia. Looking at the travel, the map and the way mission objectives, secondary objectives and collectibles are distributed around the area you could be forgiven for thinking that the game was an expansion for Ghost Recon: Wildlands, with the Ghosts heading to Georgia after cleaning up Bolivia. Happily, Ghost Warrior 3 actually handles the scale of the levels better than Wildlands did, mostly thanks to the nature of the action. Sniping is about finding a good vantage point, taking a few shots and then strategically redeploying to somewhere else before the enemy can pinpoint your location. In this manner the scale of Georgia works extremely well. On a technical level it's something of a mess though, with unstable framerates, texture pop in and extremely long load times when starting a game or moving to a new area.



I can't believe they found me here in the Best Sniping Spot Ever.

> as good as the sniping can be, CI Games seems determined to sideline the game's main appeal

WHY SHOULD I CARE?

+ You're a fan of Tom Berenger

+ You're a fan of Billy Zane

+ You're a fan of Mark Whalberg

As good as the sniping can be, CI Games seems determined to sideline the main appeal of the game in a number of missions, either taking away the sniper rifle entirely, or placing the action in confines too close for sniping to be used. The stealth and shooting mechanics of the game are simple and usable but uninspired, and, although these missions and other forms of gameplay do change up the action, they highlight that other games do stealth action or straight up shooting much better. Killing enemies through sniping, stealth melee kills and through regular gun battles affords experience to spend on skill upgrades, but none of the upgrades feel particularly necessary or impactful. Likewise, although new weapons are available throughout the game, the starting sniper rifle is capable of carrying you to the end.

Ghost Warrior 3 isn't terrible. When sniping works well it's some of the best long distance gunplay available on PC, but unfortunately there are too many flaws, glitches and just outright questionable design decisions to make it a good game overall. Add to that the entirely missing but advertised/promised multiplayer and you have a game that manages to both outstay its welcome and deny any possibility of longevity. *TAVISH FORREST* PC

OR TRY THIS:

SNIPER ELITE 4
REBELLION, 2017
▲ Kill Hitler
▼ American exceptionalism

GHOST RECON: WILDLANDS
UBISOFT PARIS, 2017
▲ Stealth action
▼ Empty world

ZOMBIE ARMY TRILOGY
REBELLION, 2015
▲ Schlock horror sniping
▼ Multiplayer only

VERDICT:

When it works it works pretty darn well. Unfortunately that isn't too often.

5

CORSAIR

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K95 RGB PLATINUM

COMPETE.
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Expeditions: Viking

Nordic by Nature

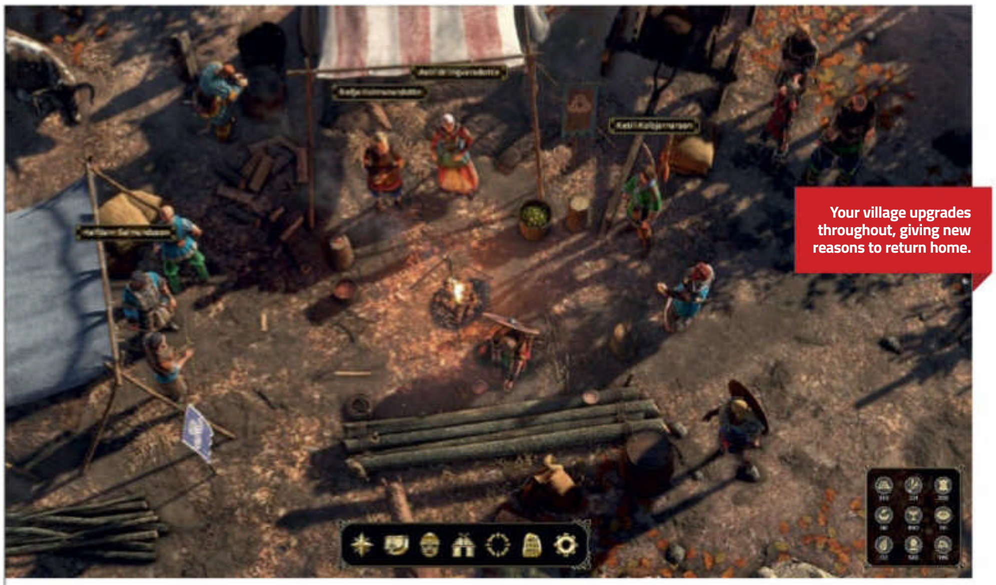
DEVELOPER LOGIC ARTISTS
PUBLISHER LOGIC ARTISTS
PRICE US$30
AVAILABLE AT STEAM, GOG
expeditionsseries.com

The clue's in the name. No, not the Viking bit. Though it does accurately describe the amount of beards and longships awaiting you. It's the other bit, the bit before the colon.

Expeditions is the name of the series which began a few years back with Expeditions: Conquistador. Both games lean heavily into ideas of travel, of trekking to new places and returning home, of time passing. This is the kind of RPG that's less about quests and more about journeys.

You play your tribe's young new "thegn" prematurely thrust into a leadership role after the untimely death of your father. While such a title is technically hereditary, anyone with an axe has the right to challenge - and this being Vikingtown, there's no shortage of axes.

An early challenge to your nascent rule is a neat example of the whole game in microcosm. You talk to your rival first, running through branching conversation trees that let you colour the tone of your approach, and if that fails, you fight. But even then there's a handful of choices you can make to give yourself an advantage in the fight. And everything you do - from dialogue choices to actions within quests - has repercussions for how you're perceived by your party members.


Your village upgrades throughout, giving new reasons to return home.

> this isn't just an RPG about killing and looting, though there is plenty of both, don't worry

Character stats further illustrate that this isn't just an RPG about killing and looting, though there is plenty of both, don't worry. All five attributes, including Strength and Endurance, can offer special dialogue choices while the 66 (mostly upgradeable) skills range from being able to wrench away an opponent's shield in combat to crafting and repairing weapons to cooking food when you make camp.

When you travel across the campaign map, time passes and your party grows tired and hungry. You've got to plan your route between campsites, bring enough food, set guard and scout duties, even assign someone the responsibility of cleaning up the camp before you leave. (Don't do the latter and it lowers the site's security, making it more risky to camp there next time.)

Combat is turn-based and tactical. Positioning matters to gain line of sight and flanking bonuses, and success is very much determined by how smartly you employ each character's skills. Get your archer to let off a ranging shot first to boost accuracy. Stun an enemy with one fighter before another steps around to backstab. If you simply move and attack you'll be reloading very quickly. Party members can't die in combat, but they'll sustain injuries that impair their abilities and must be healed over time while camping.

From the outset your goal isn't to embark on a quest to save the world; rather you must prove yourself a worthy leader, navigate political instability and earn the respect of your people. This journey takes you all over northern Europe, but you keep returning to your home. Every time you do, you chat to your family and friends and realise how far you've come. *DAVID WILDGOOSE* PC

WHY SHOULD I CARE?

+ You always come prepared

+ You have braids in your beard

+ You can pronounce "thegn"

OR TRY THIS:

EXPEDITIONS: CONQUISTADOR
LOGIC ARTISTS, 2013
▲ Better weather
▼ Worse beards

THE BANNER SAGA
STOIC, 2014
▲ Pretty
▼ Hit and myth

XCOM 2
FIRAXIS, 2016
▲ Great combat
▼ No story

VERDICT:

A deep tactical - and strategic - RPG.

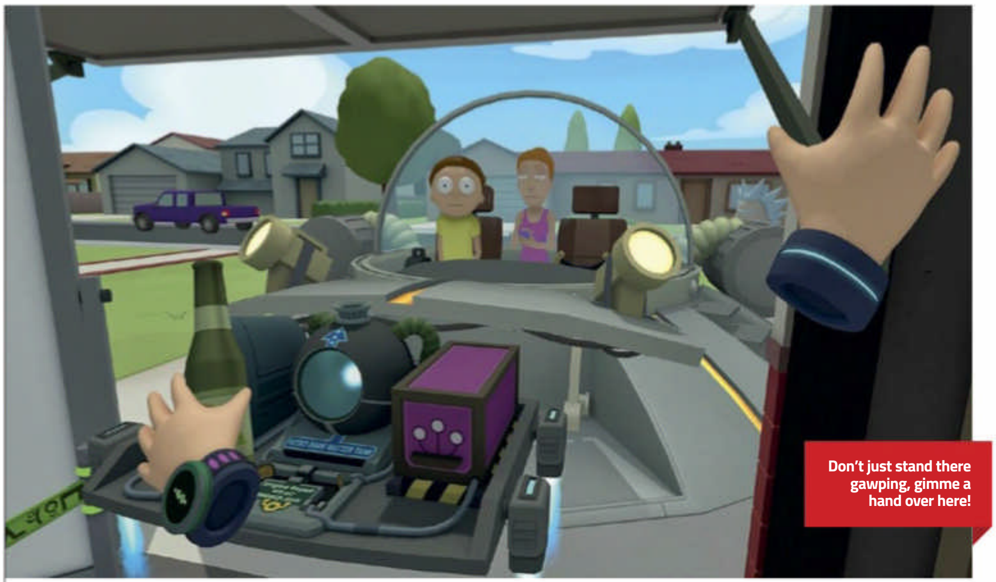
8

VR REVIEW

Rick and Morty: Virtual Rick-ality

Being nice is something stupid people do to hedge their bets

DEVELOPER OWLCHEMY LABS
PUBLISHER ADULT SWIM GAMES
PRICE $29.99
AVAILABLE AT STEAM
adultswim.com/games



Don't just stand there gawping, gimme a hand over here!

> tasks only just start to get zany a few steps before the conclusion

Owlchemy Labs, developer of one VR's most popular games, Job Simulator, returns to the toybox genre with Rick and Morty: Virtual Rickality. The studio's second major VR foray tops its previous game by bringing wackier gameplay, better visuals and amusing puzzles into the universe of the hit Adult Swim show.

The player assumes the role of a Clone Morty, created to assist Rick with mundane tasks like doing the laundry, which, consequently, is the first mission of the game. Used to train the player on the core game mechanics, the actions of picking up undies, pouring detergent and selecting a spin cycle are intuitive and, pretext aside, don't feel like a chore.

Tasks do become more varied and interesting moving forward. Deploying a Mr Meeseeks, which mirrors your movements to help you grab things out of reach, carries some inventive (if short-lived) puzzles; shrinking inside a micro-universe to recharge batteries is a frantic mini-game with a view; and merging lab props using Rick's splicing machine has hundreds of combinations to try. I felt pretty clever when I repaired a broken garage lightbulb by combining it with a glass beaker.

The game is littered with references to the show and the writing and voicing by Justin Roiland is top-notch. You can pick up and play with almost everything that isn't bolted down and most objects have unique physical or reactive properties, be it a bottle of wine you can uncork and drink (or smash), a jar of squishy eyeballs that bounce when you drop them, one of 13 cassette tapes you can load into a stereo for extra audio content, and I'd be remiss not to mention the jiggly plumbus; I'm not sure what it does.

Despite the level of interactivity and the faithfulness to the look and feel of the show, the game is likely to disappoint for its length and limitations. Tasks only just start to get zany a few steps before the conclusion and, rather than be along for an insane interdimensional ride, Clone Morty is mostly confined to the garage while a presumably grander adventure is happening with Rick and the real Morty elsewhere. You are in regular contact with Rick through the communications watch, but the main characters only occasionally stop by or call on you to portal travel.

The few areas outside the garage that Rick and Morty do pull you into are fun while they last. Moving through portals also manages to deliver a sense of travel while keeping you within the designated bounds of the game's playspaces. The visuals are in keeping with the look of the show. Character models and textures are clean and vibrant, and the cartoon shading won't put too much stress on your GPU.

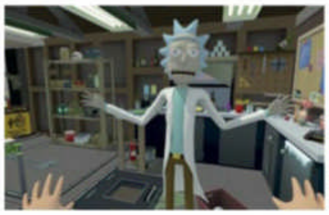
With no more than a couple of hours of 'story' gameplay included, there is certainly room for expansion, with some great potential to flesh out a few of the puzzle elements and add more environments. But with a lot of interactive content crammed into a small package and the production value so high, you'll enjoy it while it lasts. *MICHAEL JENKIN*

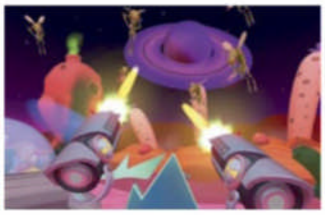
WHY SHOULD I CARE?

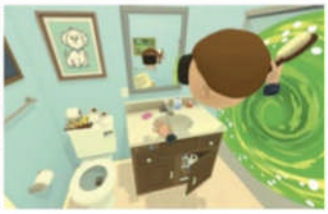
+ You were a fan of Job Simulator

+ You're a fan of Rick and Morty

+ You need more quality VR titles in your life.







VERDICT:

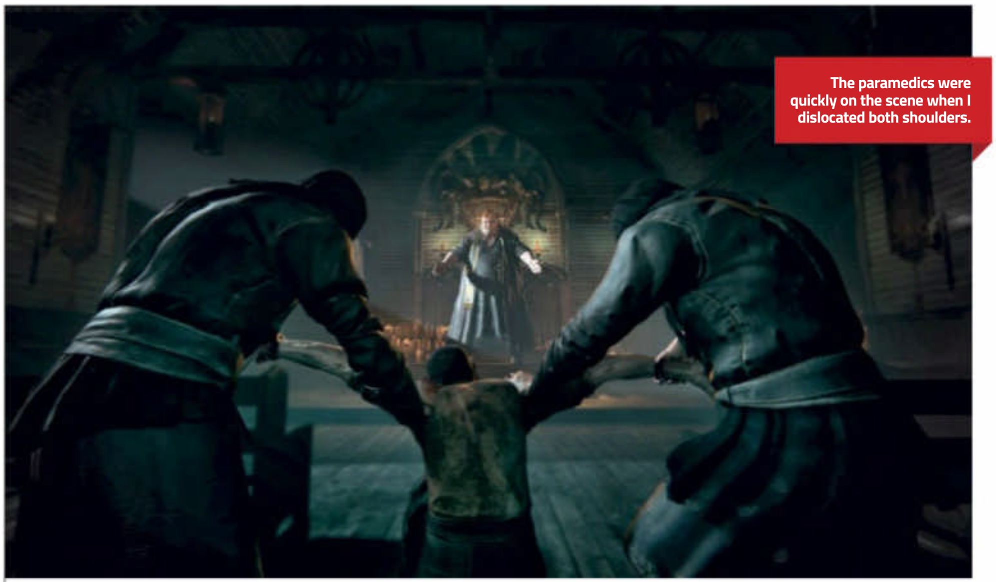
If you've always wanted to do Rick's laundry, this is the game for you

7

Outlast 2

Note to self: never go to Arizona

DEVELOPER RED BARRELS
PUBLISHER RED BARRELS
PRICE US$30
AVAILABLE AT STEAM
redbarrelsgames.com/games/outlast-2



The paramedics were quickly on the scene when I dislocated both shoulders.

> there are many good, genuinely frightening sequences, but there's also plenty of repetition

Outlast 2 garnered no small share of notoriety when it was temporarily refused classification in Australia on the grounds of sexual violence. While there are elements of sexualised violence in the final game, they play an all but inconsequential part in the overall story. At its core the game deals with something far more interesting and controversial: belief. Everyone believes something in Outlast 2, and believes to a pathological degree. Blake, the protagonist, believes he is responsible for a suicide, and the different factions all believe in some way or other they are doing God's work. It's a game about the corrupting influence of fanatical belief in anything. It's also a game in which you can have your junk chopped off with a pickaxe, so there's that too.

Blake Langermann is the husband and cameraman to investigative journalist Lynn Langermann. The couple are travelling to a remote location in the Arizonan Sonora desert to investigate the murder of a young pregnant woman when a bright light causes the helicopter they are traveling in to lose power and crash. When Blake regains consciousness, Lynn is missing and the pilot is strung up from a tree, skinned. Something is definitely wrong in the corn fields, and it's not He Who Walks Behind the Rows. Fire and brimstone sermons of God's wrath and the need for sacrifice ring out from loudspeakers and fanatics hunt for Blake with no good intent. Then things get weird and decidedly creepy.

There are a lot of jump scares in Outlast 2. That's par for the course with survival horror, but there is also an almost overwhelming sense of unease that pervades the game that makes up for the cheap boo scares. The world is a great deal more open than the confined interiors of the original game. What this means mechanically is that there are far more places that enemies can come from but also more places to hide. Only the night vision mode of your battery hungry camera can pierce the darkness, and given the openness of the environment you'll find yourself casting about wildly in all directions at the merest sound. It's unnerving and thrilling and keeps the tension ramped up nice and high.

Thanks to some subtle visual signposting - the way forward is always marked with a faint light, be it a lamp, the moon, a fire or what have you - it's difficult to get lost, but to get the most out of the game exploration to find letters and collectibles that fill out the story players really have to head off the beaten path, and due to the darkness, lack of batteries and openness of the maps, this is rarely fun. It feels like a way to pad play time for the most part, and in some ways the game already feels a little too padded. There are many good, and genuinely frightening sequences in Outlast 2, but there's also plenty of repetition, so be warned. That said, the game also has one of the most audacious finales in memory, and just how many of the collectibles you found and how much you paid attention will drastically change your perception of events. *DANIEL WILKS* PC

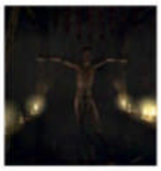
WHY SHOULD I CARE?

+ You love the lord
+ You fear the lord
+ You're pants on head crazy about the lord

OR TRY THIS:

OUTLAST
RED BARRELS, 2013
▲ Scary mind trip
▼ Insane asylum

ALIEN: ISOLATION
CREATIVE ASSEMBLY, 2014
▲ Terrifying vulnerability
▼ Stupid robot bits



AMNESIA: THE DARK DESCENT
FRICTIONAL GAMES, 2010
▲ Genuinely frightening
▼ Amnesia

VERDICT:

Outlast 2 may have proven to be controversial, but it's also proven to be a genuinely unnerving survival horror game

8

The Sexy Brutale

Agatha Christie without the racism

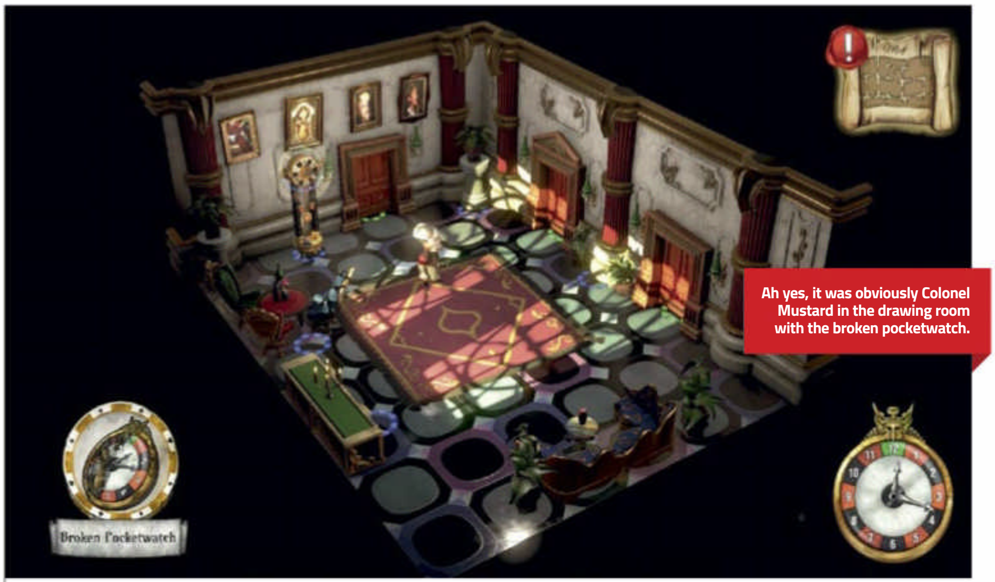
DEVELOPER CAVALIER GAME STUDIOS, TEQUILA WORKS
PUBLISHER TEQUILA WORKS
PRICE $19.99
AVAILABLE AT STEAM, GOG
thesexybrutalegame.com

Most murder mysteries boil down to being a simple "whodunnit", and a few focus more on the motive than the perpetrator, but The Sexy Brutale, the latest game from Tequila Works (the developer also responsible for our cover game this month) takes a different approach again. You see, there is no question as to who is responsible for the 10 murders in the Brutale as you can witness them all, and while the motives may only become apparent towards the end of the game, what prompted the murders isn't the real question either. No - the thrust of The Sexy Brutale is how do you go about stopping a number of murders that have already happened? Through the spirit of Bill Murray, of course.

Lafcadio Boone, an elderly priest is invited to a masked ball at the mansion-cum-casino of a mysterious Marquis. Things are going swimmingly until the gas-masked staff of the Brutale start murdering the guests. A mysterious figure leaves a bloody handprint on Boone's mask, leaving him immune to the greatest evils in the mansion and allowing him and only him to realise that at midnight the day starts all over again with the guests being brutally murdered one by one. It's up to Boone to stop these murders, but with a constantly repeating day that's not as easy as it sounds. Being an outsider to the repeating continuity of the mansion, Boone can't be in the same room as any other character lest their masks fly off and chase him like some kind of horrific immune system, so he must observe and manipulate from behind the scenes, hopefully making changes that can save one life at a time.

It's all but impossible to talk about the puzzles in any way other than abstract without giving away spoilers. The puzzles are both straightforward and extremely clever, and working out how to stop a murder is a wonderful feeling, no matter how many times you have had to witness a violent death beforehand. Paying careful attention to actions is key to solving each murder - taking note of what is being interacted with, where people are standing and more play an important role in deduction. Once a murder is solved, Boone gains powers based around the traits and mask of the person saved, such as the ability to pick locks or have more acute hearing. These abilities unlock new areas of the mansion to explore and new powers to help in solving murders, essentially adding new mechanics each time to organically increase the complexity of subsequent murders.

There is so much to like about The Sexy Brutale. The jazzy soundtrack is incongruously and appealingly upbeat, and the adorable Chibi figures belie the darkness of the setting. Over the seven or so hours it will take to solve all the murders you'll find yourself drawn into the world of The Sexy Brutale, looking for any excuse to stay. It's that good a game. In fact, it's an early contender for one of the very best games of the year. Go play it. *DANIEL WILKS*



Ah yes, it was obviously Colonel Mustard in the drawing room with the broken pocketwatch.

> things are going swimmingly until the gas-masked staff start murdering the guests

WHY SHOULD I CARE?

+ You don't suffer maskaphobia
+ You do suffer maskaphobia
+ You are Bill Murray

OR TRY THIS:

HER STORY
SAM BARLOW, 2015
▲ Mystery and repetition
▼ No concrete conclusion

ZERO ESCAPE TRILOGY
SPIKE CHUNSOFT CO., LTD., 2017
▲ Moral conundrums
▼ No repetition

THIMBLEWEED PARK
TERRIBLE TOYBOX, 2017
▲ Lynchian mystery
▼ Goddamn clowns

VERDICT:

Brilliant execution of a unique premise. A definite contender for game of the year so far.

10

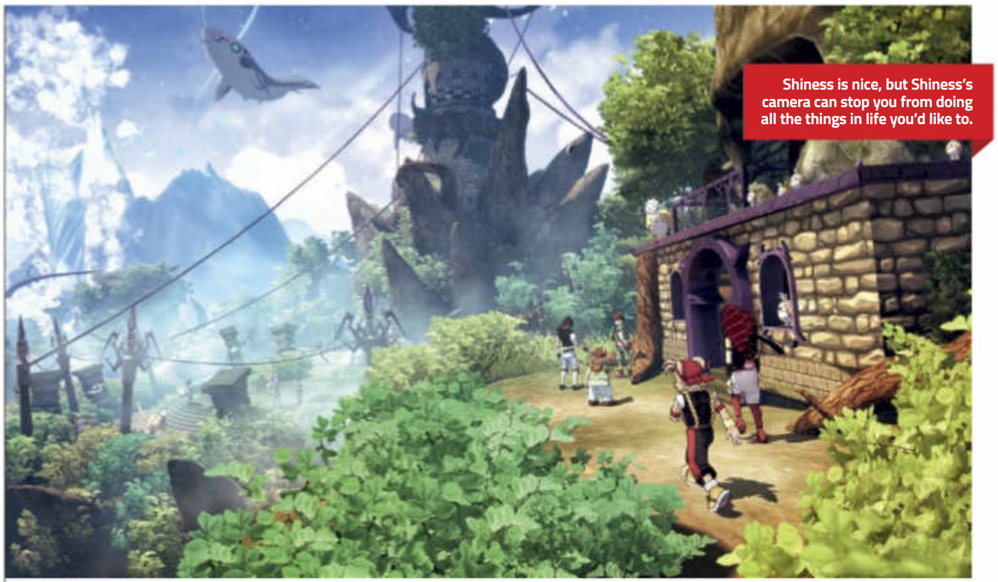
Shiness: The Lightning Kingdom

Fur is murder

DEVELOPER ENIGAMI
PUBLISHER FOCUS HOME INTERACTIVE
PRICE $29.99
AVAILABLE AT STEAM
shiness-game.com

Sometimes you have to wonder if game Western game development studios that make Japanese style RPGs are all headed up by furries. Nearly all of them feature at least one, if not more muscular cat or wolf people that brood and are, at least to one of the other characters, more than a little dreamy. Shiness: The Lightning Kingdom doesn't shy away from anthropomorphic animal characters in the slightest, with multiple cat people, and a fox boy with his chubby bear man sidekick. So can a French indie development studio successfully make a Japanese style action RPG? Yes, yes it can. Well, mostly anyway.

There's some pretty deep lore behind Shiness. Mahera, the world on which the game takes place has been chattered into a loose-knit field of floating islands by a cataclysm. Chado (pronounced Shadow) is a fox-like Waki, and the pilot of an airship. Along with his fat friend Poky (another Waki but more like a bear than a fox), Chado crashes on one of the floating islands and becomes embroiled in political intrigue and quite a few punch-ups.


Shiness is nice, but Shiness's camera can stop you from doing all the things in life you'd like to.

> there's ample exploration, but the absence of side quests makes everything feel vital to the game

There are two things that really separate Shiness from many other action RPGs on the market, but these differences really add up to make the game a quite memorable experience. The first is the fact that, aside from a few bounty style missions, everything in Shiness is based around the central story so there is little that takes you off the critical path. While this may sound a little limiting, there is still ample room for exploration, but the absence of side quests makes everything feel vital to the game. The other differing factor is the simple but clever combat system that utilises a mix of real-time attacks and colour coding.

When a character enters combat they and the enemy are enclosed in a coloured arena that cycles between red, blue, green and the like. Each of these colours corresponds to an element, making that element more dominant when the arena is of the corresponding colour. For example, a red arena is keyed to fire – fire attacks will do more damage and water attacks will do less. Likewise enemies attuned to a colour will be more dangerous in arenas of said colour, so it's advisable to go on the defensive until the colour of the arena changes to something that weakens them, or at least brings them back to the baseline.

Combat itself is a pretty simple four button beat-'em-up with blocking and dodging supplemented with magic. It's a pretty straightforward and entertaining combat system that remains compelling throughout the game thanks to new styles and techniques becoming available through levelling.

The one thing that gets in the way of Shiness being great is a pretty huge hurdle. The camera is awful, and for a game with a lot of verticality and jumping, as well as arena combat, having a camera that often seems to decide that the best view of an arena or area is through the arse of an enemy isn't what you would call conducive to having a good time.
TAVISH FORREST

WHY SHOULD I CARE?

+ You're a closet furry
+ You're a proud furry
+ You're thinking of becoming a furry

OR TRY THIS:

DRAGON BALL XENOVERSE 2
QLOC, DIMPS, 2016
▲ Dragon Ball
▼ Dragon Ball

NARUTO SHIPPUDEN: ULTIMATE NINJA STORM 3 FULL BURST
CYBERCONNECT2, 2013
▲ Naruto
▼ Naruto

DRAGON QUEST HEROES II
SQUARE ENIX, 2017
▲ Great combat
▼ Furry baddies

VERDICT:

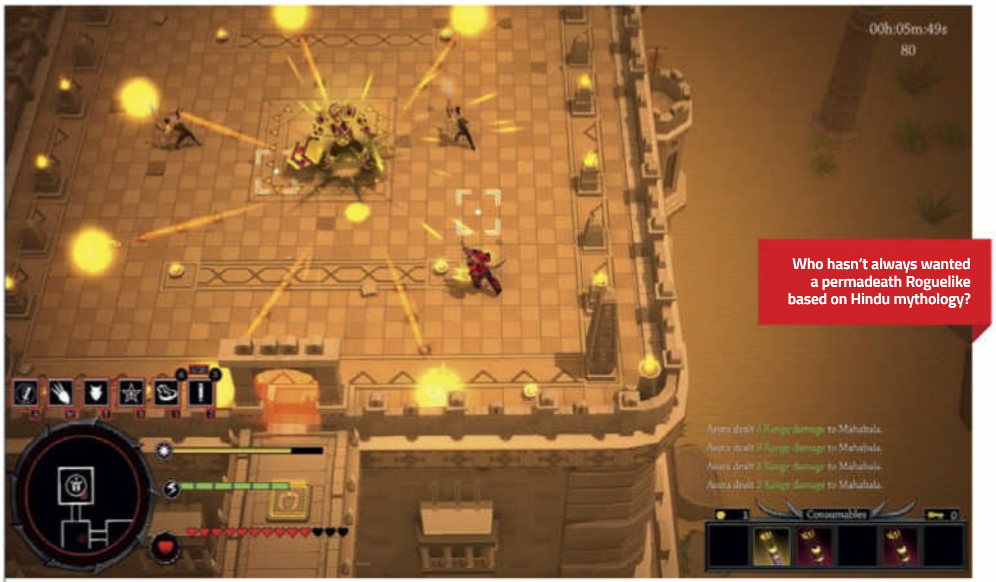
Shiness is a decent camera away from being a great game.

7

Asura

Asura's wrath, not Asura's Wrath

DEVELOPER OGRE HEAD STUDIOS
PUBLISHER OGRE HEAD STUDIOS
PRICE $9.99
AVAILABLE AT STEAM, HUMBLE, GOG
www.asurathegame.com


Who hasn't always wanted a permadeath Roguelike based on Hindu mythology?

> making more than one or two attacks in a row is a good way to get yourself dead very fast

There is a bit of controversy around Indian developed ARPG Asura, and that is a pity. The developers have been called out for posting a glowing review of their own game on Steam (though they put the blame on the Chinese publisher of the game) and as such all positive reviews of the game can now be seen as being somewhat suspicious. It's kind of an ironic situation for the game to be in, because the early glowing review from the developer or publisher - depending on who you believe - is entirely unnecessary. Asura is a great little ARPG based around Indian mythology and deserves a look despite the controversy.

Players take the role of an Asura, a demonic being hellbent on revenge against the supposedly holy men who burned him at the stake as a sacrifice to their gods. Revenge takes the form of infiltrating five forts and killing the rulers therein, relegating them to an afterlife of subservience. Although the camera takes a top down perspective and the controls are left quite simple, Asura can best be thought of as a kind of arcade Souls style game. Avoiding attacks and dodging is the only way to ensure you stay alive, and making more than one or two attacks in a row is a good way to get yourself dead very fast. Characters can hold two weapons - one melee and one ranged - at any time, and can equip shoulder, gauntlet and leg armour pieces to defend themselves. It's a simple equipment system but the very simplicity makes getting an upgrade all the more satisfying.

Each fort is made up of a number of interconnected rooms, some of which contain enemies and others shops or treasure chests. Rather than getting loot and experience from each kill, players have to actively decide which they want. Looting a corpse rewards the player with loot, such as currency to use in shops, new weapons, or quivers full of arrows to replenish your supply of arrows. Consuming a corpse grants experience. Both gear and levelling are potentially a powerful upgrade, so the further you progress in the game the more difficult it becomes to decide between the two options. The fact that the skill tree is procedural adds an element of chaos to proceedings as well. There are 80 odd skills in the game but only some will appear on your skill tree each time you play, so it becomes a bit of a crapshoot as to the efficacy of levelling. If there is any complaint we have with the game it is that level of randomness in the skills available. You may unlock a skill that makes you deadly with hammer style weapons, but if you don't have one and can't get one, what's the point?

WHY SHOULD I CARE?

+ You don't appreciate being sacrificed

+ Your rage knows no bounds

+ You like your revenge served piping hot

Asura mixes Rogue-like procedural generation and permadeath with elements of persistent world design. Each time you defeat one of the bosses of a fortress they remain defeated in subsequent attempts even though your character starts from the beginning again. Defeated bosses can also appear at random in subsequent fortresses as well, adding a potentially deadly but very rewarding fight when you least expect it. *DANIEL WILKS* PC

OR TRY THIS:

TELEGLITCH: DIE MORE EDITION
TEST3 PROJECTS, 2013
▲ Harsh survival Rogue-like
▼ Low-fi

FORCED SHOWDOWN
BETADWARF, 2016
▲ Rogue-like Moba-like, card-like
▼ Too many likes

HYPER LIGHT DRIFTER
HEART MACHINE, 2016
▲ Rad, hard hack and slash
▼ Difficulty cliff

VERDICT:

Sometimes the randomness gets in the way, but otherwise Asura is a blast

8

Bulletstorm: Full Clip Edition

Great game, unreasonable price tag

DEVELOPER PEOPLE CAN FLY
PUBLISHER GEARBOX SOFTWARE
PRICE $49.99 USD
AVAILABLE AT STEAM
bulletstorm.com

This guy looks as old as most of Duke Nukem's so-called jokes.

> murder combos grant bonus points, so it really rewards creativity, and not a little bit of cruelty

Bulletstorm was a rad game when it was first released in 2011, thanks to a winning combination of puerile humour, fast and rewarding shooting mechanics and some excellent action setpieces. The Full Clip Edition takes this original game, puts a shiny coat of paint on it and then charges you way too much for a six year old game. The constantly exciting and creative combat is still very appealing, but the simple fact that the game is being sold for the same price as a newly released AAA title (or more if you get the Duke Nukem DLC that initially appeared to be an integral part of the remaster) makes it somewhat difficult to recommend.

For those of you that missed Bulletstorm the first time around, the game follows Grayson Hunt, an ex-special forces killer turned renegade after being betrayed by the brass and blah, blah, it doesn't really matter. After doing something suicidally stupid and getting most of his crew killed, Grayson and his one surviving friend, now a homicidally angry cyborg thanks to some rushed surgery, find themselves stranded on an abandoned resort planet hunting the very man who betrayed Grayson in the first place. The planet is home to warring tribes of wasteland psychos and other threats. You kill them in stylish ways for points.

The central combat loop is based around four things: the energy grapple that allows Grayson to grab opponents and throw them towards him, a kick that sends them flying away, the weapons that he currently has equipped, and the environment. Combining all these things in creative ways rewards the player with points that can be spent upgrading equipment to unlock more potential murder combos. The first time you uncover one of these specific murder combos grants bonus points, so it really rewards creativity, and not a little bit of cruelty. Kick a guy into a cactus. Set him on fire and then shoot him in the balls. Drag a guy into the air with the leash, kick him away and then blast him with a shotgun into a wall. The more you try the more points you rack up and the more you can try.

The remaster is great. The game looks fantastic, and while not necessarily up to the standards of modern AAA titles there are more than enough great looking vistas and impressive setpieces to keep eye candy fans happy. The Duke Nukem DLC is fitfully amusing, mostly because only Duke's voice files are different, so half of the dialogue becomes Duke correcting people that he is "Duke Fuckin' Nukem" when they repeatedly call him Grayson, or, in the best line of the DLC, refuses to accept blame for something because, "I'm not even meant to be in this flashback". Despite how good the remaster is, it still doesn't warrant such a high price tag, and the fact that the original version is no longer available on any digital service thanks to a convoluted copyright issue makes it seem a bit like a crude cash grab. *DANIEL WILKS* PC

WHY SHOULD I CARE?

+ You believe murder is an art form

+ You are a fan of dick jokes

+ You want to pay extra for Duke Nukem

OR TRY THIS:

PAINKILLER
PEOPLE CAN FLY, 2004
▲ Horror murderthon
▼ Grimdark

SERIOUS SAM 2
CROTEAM, 2001
▲ Fast, fun, funny shooting
▼ No crazy combos

THE DARKNESS 2
DIGITAL EXTREMES, 2012
▲ Creative, funny demonic murder
▼ No Darkness 3

VERDICT:

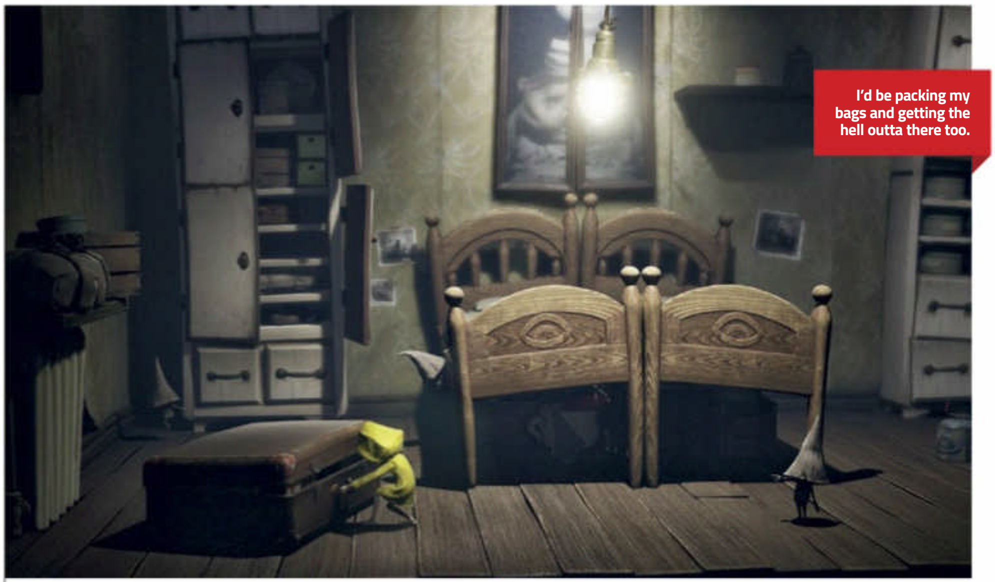
When it's at half price or less thanks to a Steam sale, grab it.

8

Little Nightmares

Don't Look Back

DEVELOPER TARSIER STUDIOS
PUBLISHER BANDAI NAMCO ENTERTAINMENT
PRICE $19.99
AVAILABLE AT STEAM
little-nightmares.com/en/



I'd be packing my bags and getting the hell outta there too.

> populated by bloated and malformed adults who would like nothing more than to eat you up

While most horror games deal in gore and jump scares, there is a different breed of horror that has established a firm foothold in the indie scene - the horror puzzle platformer that relies on mood and the chase rather than the shock and the kill. Not necessarily pioneered by, but certainly brought to mainstream attention by the likes of Limbo and Inside, these games use scale and distance to make the player feel small in an overwhelmingly dangerous world, and insignificant compared to the evil they face. Little nightmares takes this approach a step further, putting the play in control of a miniscule, raincoated child in a world of monstrous, outsized adults. Awakening from a nightmare, the player finds themselves on a ship populated by horrid, bloated and malformed adults who would like nothing more than to eat you up. How you got there and why everyone wants to eat is a mystery you'll have to discover for yourself. Little is explained explicitly, but the overall plot is laid out for those who explore.

The scale of the ship is daunting. Each room is essentially a level, with the player having to work out how to get to the next using a combination of platforming and light puzzling, all the while making sure that they aren't spotted by the gluttonous passengers and crew. The world is outsized for the player. Everything is huge and that is where the platforming comes in. A tallboy could be a ladder to get you to a desk to find a key, or a roof beam could be treacherous tightrope over the head of a hungry cook. The approach makes the platforming feel very organic in the world, but also proves to be one of the few frustrations with the game. The camera is stuck in a 2D view but the levels have depth to them, so sometimes, due to the fixed camera, angles of jumps are hard to judge leading to having to do the same jump over and over again to try and get it right.

Little Nightmares is a short game - most people should be able to get through it in a single 4-5 hour sitting, and ultimately it's not what you would call particularly difficult outside of camera problems, and yet it remains a game that is incredibly easy to recommend. The constant creepy mood is thrilling and is heightened by both the art design and the ambient soundtrack. Character designs veer wildly between the cute and the grotesque, with the main character being adorable, in a very vulnerable kind of way, while the adults look something like a mix of Terry Gilliam's more disturbing animations from Monty Python and Bobo and Lil Debbull the twins from Dan Ackroyd's 1991 disasterpiece, Nothing But Trouble. Although there is a soundtrack that becomes more prominent during chase scenes or tense moments, for the majority of play time the soundtrack is made up of ambient noise and the wheezes and grunts of the adults. It's effective and unsettling, constantly reminding the player that they are alone, and insignificant in a world that is too big and too strange for them.

TAVISH FORREST

WHY SHOULD I CARE?

+ You believe that children are our future (meal)

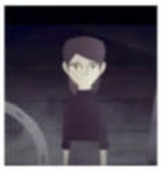
+ You look good in a raincoat

+ You're justifiably afraid of sea travel

OR TRY THIS:

LIMBO
PLAYDEAD, 2011
▲ Dead children
▼ Dead children

INSIDE
PLAYDEAD, 2016
▲ Tense, creepy, affecting
▼ Nothing



YEAR WALK
SIMOGO, 2014
▲ Melancholy vision quest
▼ Sans cannibalism

VERDICT:

Creepy and cute in equal measure, Little Nightmares is a short but tense ride.

8

DVD Contents

So, winter is here and along with a new season of Game of Thrones, that means it's time to think about long, dreary cold weekends with nothing pressing to do. This month's disk contains plenty of awesome stuff to cuddle up with and, along with an under desk heater, pass those long dark hours.

In the Free to Play category there is 8-Bit Bayonetta, Ball 3D Soccer Online, MyDream and the seriously addictive Fallout Shelter. In the Demo world there is the seriously fun Holy Potatoes! We're in Space?! as well as a huge bag of visual novels and plenty of other things to get your game on with.

For the VR equipped, Belko VR: An Escape Room Experiment is definitely worth a spin to remind yourself just why you shelled out the bucks.

Don't forget to let us know your thoughts, wishes or troubles over on the PCPP forums.

The PCPP Team.

33 FREE GAMES AND DEMOS!

- 8-Bit Bayonetta - Free
- Attack on Kitten – Demo
- Ball 3D – Free
- Battle Princess Madelyn – Free
- Belko VR: An Escape Room Experiment – Free
- Brain/Out – Free
- Cinderella Phenomenon – Free
- Crystalline – Demo
- Dark Train – Demo
- Embers of Magic – Free
- Fallout Shelter – Free
- Faust Alptraum – Free
- Holy Potatoes! We're In Space ?! – Demo
- I May Die – Demo
- Kith: Tales from the Fractures Plateaus – Free
- Life Forge – Free
- Life of a Mobster – Demo
- Life of a Wizard – Demo
- Like Clay – Demo
- Love, Money, Rock'n'Roll – Demo
- My Dream – Free
- NEKO-NIN exHeart – Demo
- Reality Incognita – Demo
- RGB Verse – Free
- Rite of Life – Demo
- Shio – Demo
- The Eagle's Heir – Demo
- The Keep – Demo
- The Lost Heir 3 – Demo
- The Watchmnaker – Demo
- Therian Saga – Free
- Toymaker – Free
- Xark Alpha - Free

BATTLE LOG
CALM
ENCOUNTER 3
PLAYER TURN 2
CHARGE
THE SPOONIK SWEETHEART
HULL
6,900
END TURN
COSMIC HORROR
HULL
6,363

Holy Potatoes! We're In Space ?!

Installation instructions included on the disc. Browse the disc and launch **index.html** for more.

USING THE DVDS
PC PowerPlay DVDs are suitable for use in almost any computer but the software contained on the medium is for Windows operating systems only. Because each PC is different, PC PowerPlay and Next Media cannot guarantee the DVDs will operate as expected on every system, despite strict adherence to Windows compatibility.

LOADING
The DVDs are set to autostart. On insertion it will load the DVD's Terms and Conditions of Use disclaimer in your default Web browser. If the DVD failed to autostart, you can load the menu manually by running the file called start.htm in the root directory using Windows Explorer.

VIRUSES
These DVDs are rigorously checked for viruses during production, however, PC PowerPlay can make no guarantees to this end. Next Media always recommends that the DVDs be scanned using your own anti-virus software on first and subsequent uses.

INSTALLING SOFTWARE
Simply click the install/download link under a file's description to launch the installation program. please ensure that all other programs are closed and that any anti-virus software is disabled before performing a software installation. Due to STEAM region locking, not all content may be available toutside Australia.

TECHNICAL SUPPORT
PC PowerPlay assumes the end-user of these DVDs has the necessary computer knowledge required to operate and install software from this product, and cannot provide technical support either for this or for any of the software contained on this disc.

DVD REPLACEMENTS
PC PowerPlay can only replace DVDs that were damaged or faulty at the time of purchase. If you think a DVD fits into one of these categories then please contact the DVD Producer immediately to assess whether a replacement needs to be sent out. email: dwilks@nextmedia.com.au

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100% AUSTRALIAN 100% INDEPENDENT | FOR THE LOVE OF GAMES
HYPER
LOUNGE ROOM SPECIAL
Local multiplayer, collecting and everything you need for the ultimate gaming setup
ON SALE NOW

Tech 262

YOUR GUIDE TO PC GAMING HARDWARE

Second-gen

VR is at last starting to fulfil its potential

My Oculus Touch controllers finally arrived this month, and they gave me a chance to dust off my Rift, which has been sitting idle for the last month or so. You can read the full review later in the tech section for my thoughts on the Touch controllers, but what I really noticed when testing these is just how far VR games have come since the Rift first landed last year.

The most obvious improvement is the visual fidelity of the games – we're talking a night and day difference compared to the rudimentary visuals of the first generation of VR games. One major standout is the incredibly spooky Affected: The Manor while other highlights include Detached, Call of the Starseed, The Unspoken and Epic's Robo Recall.

Developers have realised the strengths and weaknesses of today's HMDs, minimising pixel structure and lens reflection, while managing to deliver more intricate scenes. There is one price for this leap in graphical fidelity though: hardware requirements. My GeForce GTX 1070 struggled at times, so I had to lower certain settings, especially supersampling, which effectively increases the pixels being pushed by the GPU.

It's not only the visuals that have improved though. Where most of the first games felt like tech experiments to see which gameplay mechanics work in VR, many of the latest releases feel like fully-fledged games. They're still a little simplistic compared to standard 2D games, but the evolution in VR gameplay mechanics is definitely noticeable. Most of these new games also take advantage of the room-scale gameplay that the Touch introduces to the Oculus platform, finally bringing it on par with the Vive, albeit there are some issues. Apparently buying a third camera for the system resolves these entirely though.

Still, it was amazing to see just how far these games have come in such a short time. Even more impressive, there are some HMDs around the corner that have evolved much faster than expected. If you dipped your toe into VR at release and weren't impressed, I'd urge you to revisit the experience and try some of the latest games on the market. I'm sure you'll see that the medium is improving at a rate faster than any of us expected.

Bennett Ring
Tech Editor

Our Power Award is given to products that are best in class no matter your budget.

Our Smart Buy Award goes to products that balance performance with price tag.

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THE PCPP TESTBENCH

CPU
INTEL I7 3770K
intel.com.au

MOBO
GIGABYTE Z77X-UD3H
gigabyte.com.au

SSD
CORSAIR NEUTRON
corsair.com

RAM
8GB PATRIOT DDR3 2,133MHz
patriotmemory.com

GPU
RADEON HD 7970
amd.com

PSU
CORSAIR AX860I
corsair.com

DISPLAY
DELL U2711
www.dell.com.au

VR

Oculus Touch Controllers

Finally Rift owners can truly be in the game

PRICE US$99
www.oculus.com

When the Rift first launched, we praised it as having the superior headset when compared to HTC's Vive, but it was missing one must-have feature to make it the VR kit of choice – motion control. Originally shipping with an Xbox controller, it only delivered half of the VR experience; while everything looked grand through the HMD, the inability to reach out and touch (*somebody - Noiseworks Ed.*) objects in games really took away from the immersion. Well, that problem has now been solved with the release of the Oculus Touch, a pair of motion controllers that use a radically different design than the wands of the Vive.

Each one is held like a pistol, with a unique ring around the user's hand that contains IR LEDs for tracking. An extra camera is included with the kit, which is phenomenal value at just $99 for the lot. Not only does this allow proper motion controls, it also enables room-space experiences… kind of. It's still a beta function, and we've found it to be hit and miss to say the least. Often it would lose tracking entirely, but apparently buying a third camera helps resolve these issues entirely.

Now, onto the controllers themselves. There are two main triggers – one for your pointer finger, the second for your middle finger. We often found ourselves accidentally hitting the middle pointer though. There's also two standard buttons on the top of each controller, as well as a small thumbstick. Finally there's a single menu button on each controller. The ergonomics are far more natural than the wand-like nature of the Vive design, feeling more like you're actually using your hands than a giant pointer. Being shaped like pistol-grips also makes them a much better fit for shooters.

However, there is one major issue we found with the Touch controllers – setting them up. It took us a solid six or seven tries to optimally position our cameras, and the default suggestion from Oculus is definitely not ideal. They suggest placing each camera on the side of your monitor; however, when you're in game, leaning down to pick something up, the desk would block tracking of the controllers. We found the best placement was to put them right on the edge of our desk.

> “being shaped like pistol-grips also makes them a much better fit for shooters”

Even when they were set up correctly, we still felt that the Touch isn't quite as accurate as the Vive, and this is more noticeable when looking down the sights of guns, or aiming a bow and arrow. It's still very impressive, just not quite as sharp as the Vive. Still, for a mere US$99, a price well below what we expected, the Rift now has what it takes to stand on equal ground with the Vive. Throw in another camera, some software polish, and we think the Rift will arguably become the better overall VR solution.

BENNETT RING

- Very comfortable
- Incredibly cheap
- Great battery life

- Requires AAA batteries
- Some tracking issues

VERDICT:

While it requires a little more polish on the software front, the introduction of the Touch has finally allowed the Rift to stand on equal ground as the Vive.

9

VIDEOCARD

MSI Geforce GTX 1080 Ti Gaming X 11G

Which one to pick?

PRICE $1239
www.msi.com.au

In the last issue of PC PowerPlay, we revealed Nvidia's latest flagship consumer product, the GeForce GTX 1080 Ti. Offering performance boosts of up to 35% over the existing GeForce GTX 1080, we pronounced it the world's fastest gaming GPU. A month later and we're now being flooded with samples from Nvidia partners who are releasing their own heavily customised versions of this product. The first to cross our testbench is MSI's new Gaming X 11G – at $170 more expensive than the cheapest GTX 1080 Ti Founder's Edition cards on the market, what do you get for the extra price?

Once again we see MSI using its new Torx 2.0 fan system, which delivers up to 20% better airflow than its prior fan design. There are two of these whoppers on the card, attached to the massive Twin Frozr VI cooler. This is based around a series of 8mm copper heat pipes, which run through the large nickel-plated copper base plate. This heatsink doesn't just cover the GPU though; it also takes care of the memory and PWM components.

The entire card uses a slightly larger PCB than standard 1080 Tis, while the power has also been upped; the usual 8-pin plus 6-pin design is now replaced by twin 8-pin connectors. This pipes power to a ten-phase power system, which isn't quite as impressive as the 12+2 phase power system of the similarly priced Aorus GeForce GTX 1080Ti, but it has allowed MSI to give this card a decent factory overclock. There are three different modes that the card can be operated in. Stock 1080 Ti cards have a Boost Clock of 1582MHz, Base Clock of 1481MHz and Memory Speed of 11Gbps.

When running in silent gaming mode, the speeds run basically identical to stock, with a tiny 1MHz decrease in the Base Clock. Heading up to Gaming mode sees the Boost clock jump to 1657MHz while the Base Clock increases to 1544MHz. Finally we have OC mode, also known as screaming-fan mode, where the Boost Clock increases to 1683MHz and the Base jumps to 1569MHz. The memory speed is also increased in this mode, though only marginally, up to 11125MHz (the default is 11016MHz). Again, this is an impressive leap over default performance, but falls short of the 1746MHz Boost clock on the Aorus GeForce GTX 1080 Ti. In real world scenarios the performance is basically impossible to notice, but considering the Aorus card is basically the same price, the MSI comes off as a very close second. We should also point out that in-game, even the cheapest GTX 1080 Tis often hit Boost speeds in excess of 1700MHz.

> heading up to Gaming mode sees the Boost clock jump to 1657MHz

Having said that, either card will deliver scorching performance; they just have potential for slightly better overclocks than your vanilla GeForce. There's also MSI's exceptional Military Class 4 durability testing, which will give potential buyers better piece of mind that their product will last for the long haul. *BENNETT RING*

- Excellent factory overclocks
- Relatively quiet in gaming mode

- $175 more expensive than Founder's edition

VERDICT:

Against the Aorus GeForce GTX 1080 Ti, the MSI has slower factory overclocks and fewer power phases, but in reality will perform basically identically.

9

VIDEOCARD

Aorus GeForce GTX 1080 Ti Xtreme Edition 11G

Our pick for overclocked 1080 Tis

PRICE $1,229
www.gigabyte.com.au

And here we have Gigabyte's version of the hallowed GeForce GTX 1080 Ti. As you'll see, just like motherboards, picking between it and the competition is extremely hard, as they all have very similar features. However, there are a couple of minor differences that make the Gigabye version our favourite that we've seen so far.

Our favourite feature is the Windforce cooler found on all of the new Aorus high-end graphics cards. It's a triple fan solution, with one fan in the centre, nestled beneath the other two. Despite there being an extra fan, it's actually slightly quieter in operation during OC mode, at 2dB quieter than the MSI model. However, it's a huge cooler, taking up three slots instead of the usual two, so you'll need to take that into consideration if you're building inside a cosy case interior. Helping to keep such a huge card nice and stiff is the metal backplate, but this feature is pretty much par for the course on mid-range and above cards these days.

Like the MSI card, Gigabyte has beefed up the power supply on its variant, using twin 8-pin connectors. A small LED on each allows the user to see if there's any issue with the connection or power supply. They've also beefed up the power solution, going for a 12+2 phase design, and Gigabyte claims that they've used Titan X-grade components throughout. These have all been coated in a PCB coating to stop corrosion over time.

As we mentioned in the MSI review, the Gigabyte card has been factory overclocked slightly faster than the competition. When run in the gaming mode, Boost is set to 1721 MHz, while the base hits 1607 MHz. Crank it to OC mode and the Boost hits 1746 MHz, while the base jumps to 1632 MHz. There's no memory overclocking though; we managed to hit a stable 11.9Gbps though, up from the base speed of 11Gbps.

In terms of performance, both cards were basically identical in 3DMark's Firestrike, with the Gigabyte card hitting 22125 in OC mode, while the MSI card hit 21945. That's less than a percent difference between the two, but the Gigabyte card was quieter.

We should also point out Gigabyte has an additional output, with twin HDMI 2.0, three DisplayPort 1.4 and a single Dual-Link DVD-D (the MSI card only has twin DisplayPorts). As you can see, both cards are quite similar, yet the Gigabyte edges out the MSI in a few regards. The pay-off is that it's a three-slot card which may make it unsuitable for some systems.

BENNETT RING

> our favourite feature is the Windforce cooler found on the new Aorus high-end cards

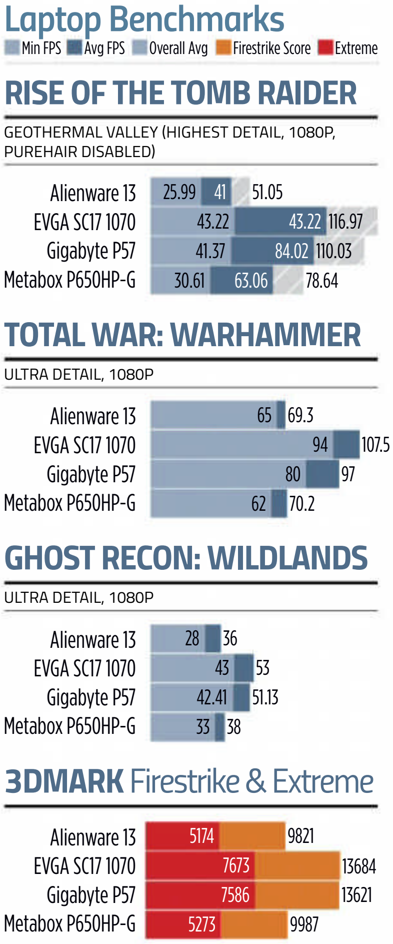
- Excellent cooling
- Superior power design
- Best factory overclock

- Triple-slot cooler

VERDICT:

Though it performs basically identically to the MSI card, a few added features make this our pick of the bunch.

10



LAPTOP

Metabox Prime P650HP-G

Prime value for money

PRICE $2166
www.metabox.com.au

We've been inundated with gaming laptops of late, thanks to Nvidia's wondrous new mobile GPUs. The Metabox Prime P650HP-G is a GeForce GTX 1060 based laptop that focuses on value and performance over portability, designer good-looks and exotic materials and features.

The 15.6-inch display means this machine fits squarely in the middle of the pack when it comes to gaming laptop sizing. It's a little heavy, at 2.6kg, and it's been built with 'al-alloy' according to Metabox. However, we're sure some of the surfaces use plastic as well, or are at least covered in a coating that is reminiscent of plastic. Regardless, it feels nice and sturdy. The screen is a 120Hz 1920 x 1080 panel with G-Sync support, but enabling this high-refresh rate is rather tricky. We had to figure it out via a quick spot of Googling – it turns out that Nvidia's Optimus technology must be disabled, which is called MSHybrid on this unit. Despite the use of an LCD screen, we found the image quality to be excellent, especially in regards to motion blurring.

We also had some issues initially with the system performance, with applications taking far too long to open considering the powerful hardware within. Thankfully a series of Windows updates resolved this problem entirely. Speaking of said hardware, it's easy to see where Metabox has poured the budget for this machine – into the guts of the unit.

Intel's extremely popular mobile gaming CPU, the i7-7700HQ, can hit a top Turbo speed of 3.8GHz, while it's quad HyperThreaded cores ensures excellent multitasking performance. A decent amount of 16GB of DDR4 2400MHz has also been included, alongside a Crucial MX300 275GB M.2 SSD. There's no secondary drive in this configuration, so we'd definitely suggest adding another mechanical drive to ensure you're not always worried about disk space. Finally we have Nvidia's excellent GeForce GTX 1060 GPU rounding out the mix, and it's a good match for the rest of the specs within. Compared to the likes of the MSI GE72, which is the same price yet packs in a GeForce GTX 1050 Ti instead, and the Metabox Prime shines as great value. Even better, it's nice and quiet whilst in operation, hitting a mere 46dB under load, a big drop over the other laptops.

As our new benchmarks show, this machine is a very close match to the Alienware 13, which has extremely similar specs. It's basically got the grunt to run most modern, demanding games at high settings at 1920 x 1080p, though the demanding Ghost Recon: Wildlands proved to be a bit too much of a struggle for this GPU.

> it's nice and quiet, hitting a mere 46dB under load, a big drop over the other laptops

Overall Metabox has delivered an exceptionally priced laptop that has excellent specs throughout; we would definitely suggest adding a second drive though. The inclusion of a 120Hz G-Sync panel is simply the final cherry on the top, just be aware that you'll need to jump through a few hoops to enable it.

BENNETT RING PC

- Excellent value
- Well-balanced specs
- 120Hz G-Sync display

- LCD panel isn't best for colour or contrast
- Rather bland design

VERDICT:

If you're looking for a fantastic value 15-inch gaming laptop, the latest Metabox Prime delivers on all counts.

9

LAPTOP

Alienware 13

Real gaming performance on the go

PRICE $2,699
www.alienware.com

Proving that you don't need a behemoth of a laptop to power the latest games is Alienware's shiny new Alienware 13. This tiny 13-inch laptop weighs a mere 2kg, yet has ample power to smash through the latest games on the market. You're going to have to pay a little extra for the privilege, but if you want serious gaming grunt without back-breaking mobility, it doesn't get much better than this potent little runt.

The 13.3-inch screen is a full HD 1920 x 1080 display, and shows off Dell's trademark excellent panel quality, with rich vibrant colours and deep, inky blacks. There is one annoying bug though – no matter what setting we used for screen sleep, it would always turn off within a matter of minutes, even when switching it to high performance mode and disabling sleep entirely. We're sure a BIOS update will fix this though. Just above this is the Tobii Eye Tracking system, which we've seen in the past on MSI laptops. Again, we're not big fans of it – even though it's relatively accurate, using it in-game feels very uncomfortable, as you have to take your eyes off the action in the centre of the screen to rotate the camera.

Given the small size, the keyboard is surprisingly large and comfortable to use. The touchpad glows when in use, an interesting design quirk that is really only aesthetic. Given the small size, the range of ports is impressive. A single Killer E2400 Gigabit Ethernet IPV6 delivers network connectivity in addition to the 802.11ac Wi-Fi. Twin SuperSpeed USB 3.0 Ports Type A are in addition to the Type C USB 3 port, which doubles as a Thunderbolt 3 port. Alienware's proprietary graphics amplifier port is also included, though you won't need it, while HDMI 2.0 is perfect for outputting to 4K TVs.

It's what's under the hood that impresses most though. It doesn't get much faster than Intel's i7 7700HQ, a quad-cored beast that Turbo Boosts up to 3.8Gz. Paired with 16GB of DDR4-2400 and a 256GB PCIe SSD, and it's no surprise that this machine is super responsive and snappy. It'd be nice to have a slightly larger SSD, but this can be upgraded to a 512GB model. Finally there's Nvidia's GeForce GTX 1060, and as our benchmarks show, it does a very capable job with even the latest games. Sure, you can buy a 1070-equipped machine for the same price, but it'll be a damn sight less mobile.

Alienware has taken mobile computing to new heights with this great little monster, all without attaching an exorbitant price tag. If you're looking for a truly game-ready machine that you can carry around all day, look no further. And if you want to bring it up to 4K levels of performance, the additional graphics amplifier means you can hook up a GeForce GTX 1080 Ti when you're back at home base.

BENNETT RING

> if you want gaming grunt without back-breaking mobility, it doesn't get much better than this potent little runt

- Lightweight
- Powerful
- Affordable

- Buggy sleep mode
- Relatively thick

VERDICT:

Alienware has delivered a kick-arse mobile gaming laptop, with excellent performance at a very reasonable price.

9

LAPTOP

EVGA SC17 1070

This powerhouse will power through your bank account

PRICE $4,299
www.evga.com

EVGA is better known for its close relationship with Nvidia in Australia, so it was with great interest that we accepted an invitation to check out this chunky 17-inch gaming laptop from the brand. EVGA is renowned for being a premium brand, so we were expecting a rather hefty price tag… just not quite this pricey.

Weighing in at a hefty 3.7kg, it's not the kind of machine you want to stuff in your backpack. This is largely due to its size, based around that whopping 17.3-inch display. It's a full-blown 4K panel, and we have to hand out praise where it's due – this is one of the sexiest 4K panels we've seen. There's no motion blur whatsoever despite being based on IPS technology, though it's a shame there's no G-sync support at this price point.

The chassis is a beautiful black aluminium unibody design, with a full sized keyboard and numpad. We have to say that the touchpad is one of the worst we've ever used though, in both its accuracy and the responsiveness of the buttons. Due to the large size of the unit there's an absolute boat-load of I/O options, far too many to mention here. It's great to see EVGA have included a USB 3.1 Type-C to Type-A adaptor, as well as a splitter that allows you to plug a separate mic and headphone cable into the single audio 3.5mm input/output; most laptops require the user to buy this separately.

EVGA is promoting this as one of the world's first truly overclockable laptops. The Intel Core i7 6820 HK CPU is multiplier unlocked, and can be tweaked via the EVGA software, or even simply by using shortcut keys on the keyboard. At default it runs at just 3.6GHz, which seems rather lowly for a machine of this price; we managed to get its quad-cores running at 4GHz, though paid a 5dB price in fan noise in the process. 32GB of G.Skill DDR4-2666MHz is bucketloads, while the small size of the 256GB PCIe NVMe M.2 SSD is offset by the inclusion of a secondary 1TB mechanical hard drive.

> we managed to get its quad-cores running at 4GHz, though paid a 5dB price in fan noise in the process

Finally we have Nvidia's GeForce GTX 1070 mobile GPU. As you can see from the benchmarks, it's a speed demon, but for this price we really expected a faster CPU and GPU. When compared to the likes of Metabox or Aorus, this machine feels about a grand too expensive, despite the exquisite build quality and 4K display. Thankfully we've seen one store offering this machine for $3,799 (*www.mwave.com.au*) which makes it more palatable. If you can manage to get it at this price point, it's a better value proposition, yet is still a little more expensive than more powerful laptops. *BENNETT RING*

- Beautiful build quality
- Relatively quiet
- Immaculate screen

- Overpriced for the CPU/GPU mix
- Not exactly lightweight

VERDICT:

EVGA has delivered a beautiful machine that is actually overclockable – it's just a little bit too expensive compared to some of the competition.

8

LAPTOP

Gigabyte P57Xv7

In need of some BIOS love

PRICE $3,599
www.gigabyte.com.au

Welcome to the latest version of Gigabyte's highly successful P57 gaming laptop. Based on the naming nomenclature, it seems to be the seventh version of this beast, so they're obviously doing something right. It's a big 17-inch bruiser designed to deliver top gaming performance without giving a damn about portability or battery lifespan – we're talking good old school gaming laptop design ethics. In some ways it's the antithesis of the Alienware 13, but boy does it deliver performance in spades.

The overall dimensions are dominated by that huge 17.3-inch display, which packs in a rather hefty 3840 x 2160 pixels – 4K gaming is here baby. Well, it would be if the GPU could deliver that much power, but more about that in a second. Being a gaming machine, it's not touch-enabled, but it is built using IPS technology for superior colour and contrast quality. Despite this, we didn't notice any horrible tearing or image smearing during any of our new benchmarks, even though it's locked to a refresh rate of 60Hz.

Weighing in at 3kg, this is most definitely not a machine designed to be moved around each and every day. The extra size has given Gigabyte plenty of I/O options though, and there's even an optical drive that extends from the front of the machine. Compared to some of the garish competition, the sleek black lines of the chassis with an orange highlight are very subtle, so the folks flying next to you won't realise you're gaming instead of doing an Excel spreadsheet. There's a tiny bit of keyboard flex, but it's also full-sized, making it great for gaming – you'll just need to bring along your own mouse.

On to the bits you care about – what has Gigabyte crammed inside. Powering it all is the ever-popular Intel Core i7 7700HQ, along with a whopping 32GB of DDR4-2400. However, rather than pair this top-end CPU with an entry level GPU, Gigabyte has gone for a GeForce GTX 1070. This is identical to the GPU used in the EVGA machine this month, which makes our benchmark results a little puzzling, especially as the EVGA has a slower CPU at default speeds (3.6GHz vs 3.8GHz). When it comes to 3DMark and Ghost Recon: Wildlands, both machines are neck and neck. Yet firing up Total War: Warhammer and Rise of the Tomb Raider showed the Gigabyte lagging behind.

We thought this might be due to an overly active thermal control system, but both systems benched at an identical 50dB when it came to fan noise. We re-ran the tests countless times, as well as ensuring every Windows and driver update was in place, but we still couldn't close that gap. There's obviously something going on here that is keeping the P57Xv7 back from its rightful place as the faster of the two – the sooner that Gigabyte can figure this out, the sooner we can recommend it. Still, at $700 cheaper than the EVGA while delivering identical performance in half the tests, and only 10% slower in the rest, we can't deny what a great value proposition the P57Xv7 is. *BENNETT RING*

> rather than pair this top-end CPU with an entry level GPU, Gigabyte has gone for a GeForce GTX 1070

- 512GB SSD + 1TB HDD
- GTX 1070
- Gorgeous 4K screen

- Strange benchmark results
- It's a brute

VERDICT:

There's obviously something buggy going on here given our benchmark results, but despite this, the P57Xv7 still delivers exceptional value for money.

8

BOTTLENECKS AND BENCHMARKS

So exactly how does PC PowerPlay test the latest hardware? **BENNETT RING** spills the beans on his benchmarking secrets.

Last issue of PC PowerPlay, we reviewed AMD's new Ryzen 5 CPU in rather hefty detail. However, compared to many other reviews, our gaming tests were, well, less than glowing. This is because we test components different to many websites, and it caused a little unease with certain hardware partners. As a result, we've decided two things – firstly, we're updating all of our benchmarks with the exception of the ever-reliable 3DMark. Secondly, we're going to explain why we test the way we do, and show you benchmarks that illustrate exactly why we do so.

OUR NEW MAJOR BENCHMARKS

We're sticking with 3DMark because it's the most widely acknowledged, independent benchmark on the planet. While certain game engines are built closely with the assistance from AMD or Nvidia, 3DMark is built to give neither vendor an advantage. It's been in use for over 15 years, and is built by a team who strive for one thing – repeatable, accurate tests that are as scientifically accurate as possible. Over those 15 or so years, the benchmark has now expanded to include around a dozen different tests, which can be used to focus on CPU performance, GPU performance and even the latest APIs such as DX12. We've found it to spit out the most accurate results of all benchmarks – where others may vary by up to 20% between each run, 3DMark is usually within one or two percent each time it runs.

The next game on our list is Rise of the Tomb Raider. We chose this test for several reasons. Firstly, it now officially supports DirectX12, an area that is becoming increasingly more important. Secondly, it's very GPU-centric when set to Ultra, with dozens of different shaders that tax GPUs incredibly. Finally, there are three built-in benchmarks, but we only use the result from the Geothermal Valley test, to keep things simple. If there is one issue with this test, it's that we've found rather high levels of variance between each run. To get around this, we run the test three times, and then average the result. We also disable the Purehair technology included in the game that was built for AMD products, as this would put Nvidia products at a disadvantage.

One game that is fantastic for putting CPUs through their paces is Total War: Warhammer. The Built-in Benchmarking feature contains hundreds of individual units, each with their own unique AI running. When lowering the GPU-intensive settings in the incredibly detailed options menu, we can put all of the load on the CPU, which is why you'll see some very interesting results in the following benchmarks. It also has beta DX12 support, rounding out our reasons for making this our third benchmark. Like Rise of the Tomb Raider, we run it three times and average the result.

> we've found 3DMark spits out the most accurate results of all benchmarks - usually within one or two percent each run

▲ **While the models in Fire Strike may not look amazing, they require serious grunt to render**

Our final pick of the bunch is the latest in the Tom Clancy Ghost Recon series, Wildlands. Firstly, because it's utterly beautiful. The huge amount of detail spreads across massive draw distances makes it one of the most demanding games currently on the market. By fiddling with the settings, we can put the strain on either the CPU or the GPU, or both. Again, we run the test three times to get the average score, as there is a slight amount of variance between each run.

We also have a variety of other benchmarks up our sleeves for testing other components, such as Wi-Fi performance or SSD performance, including but not limited to SiSoft Sandra, Zoltán Pallagi's WiFi Speed Test, and CrystalDiskMark. However, you'll see the above four tests most commonly used. Note that we also reboot the PC between each and every benchmark, as well as update Windows and the graphics drivers prior to testing; this is why we have to retest older samples in comparison to new products, as driver improvements can change their performance over time (in some AMD cases, by up to 20%).

So there you have it – our new range of cutting edge benchmarks. Here's how we use them.

SMASHING BOTTLENECKS

When we're testing a full system, be it a pre-built PC or a laptop, we want to look at the entire system-wide performance. So we'll run each of the above with Ultra detail, and the resolution most appropriate for that system. For example, entry-level systems and GPUs will be run at 1920 x 1080, while premium systems will be run at higher resolutions, including 4K.

However, if we want to test a CPU, we lower all graphics details that are reliant upon the GPU to the minimum, including the CPU. Many would argue that this doesn't represent real world use – and that's the whole point. We want to know the precise performance of the CPU, not the overall system performance. This is also why we run CPU tests at low resolution. As you'll see in the following benchmarks, if we test everything at Ultra detail at 4K resolution, the results between CPUs are nearly identical, even when comparing a twin-core chip running at 3.3GHz with a quad-core chip running at 4.2GHz. However, drop the GPU-dependent settings, and the real difference in CPU performance shines through; just compare the numbers for Rise of the Tomb Raider, lowest detail, 800 x 600 between the i3-7350K and i7-7700K; it's half.

The opposite is true when testing GPUs. To ensure the CPU isn't the limiting factor, we test with the fastest CPU on the market, regardless of which GPU we're testing, in the form of the 7700K. We're currently working on getting our 7700K to run at 5GHz 100% of the time to make it even less of a bottleneck (currently it tops out at 4.5GHz as the default Boost speed). In both cases, we pay particular attention to the minimum FPS, as this is when the game experience is the worst for the player. It's wonderful if the overall average framerate is 75 frames per second, but if the game is regularly hitting 30 fps, it's not going to be a very smooth playing experience.

Hopefully this article has given you a closer insight into the way we test here at PC PowerPlay, and why we've selected these new benchmarks. Also it should give you an idea of just how long it takes to test a single product, and we haven't even mentioned what happens when things like a massive Windows update drops right in the middle of a huge roundup, requiring retesting of all products. Still, it's our goal to provide you with the most accurate performance

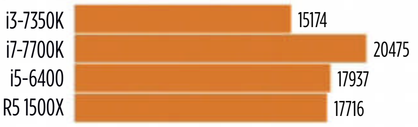
CPU/GPU Resolution Bottleneck Testing

TEST CONFIGURATION: AORUS GEFORCE GTX 1080 TI XTREME EDITION, 16GB BALLISTIX DDR4-2666MHZ; SANDISK ULTRA II SSD; WINDOWS 10 HOME CREATORS UPDATE

▇ Avg FPS ▇ Min FPS ▇ Score

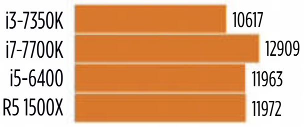
3DMARK Fire Strike

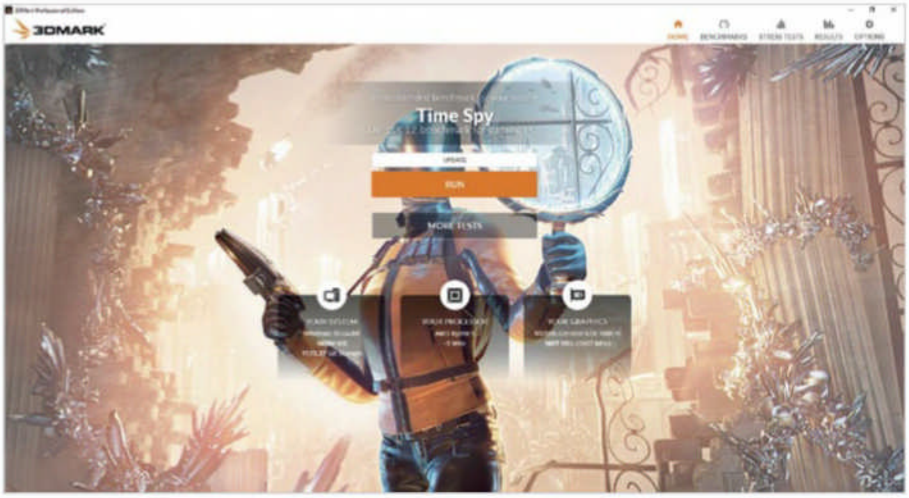
1920 X 1080



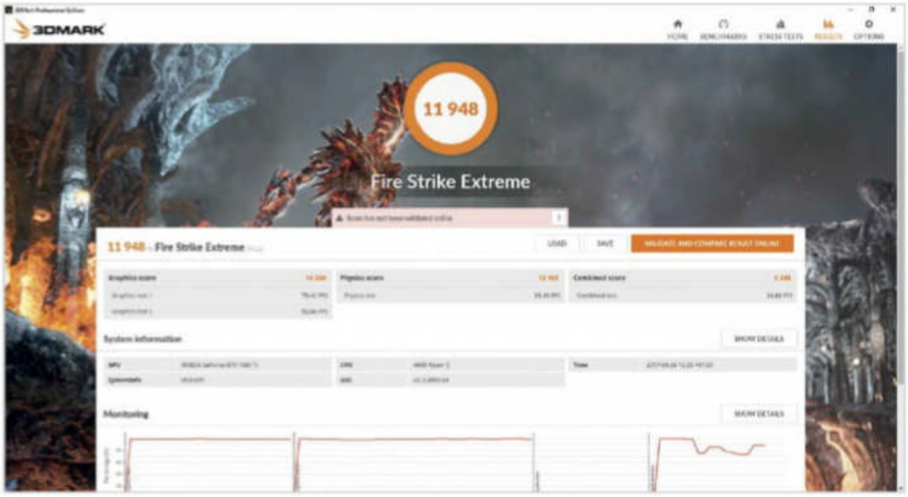
3DMARK Fire Strike Extreme

2560 X 1440





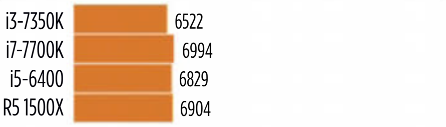
▲ Time Spy is a new 3D Mark benchmark specifically looking at VR performance



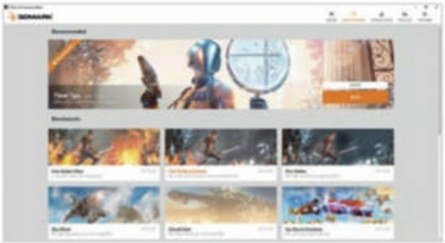
▲ Fire Strike results

3DMARK Fire Strike Ultra

3840 X 2160



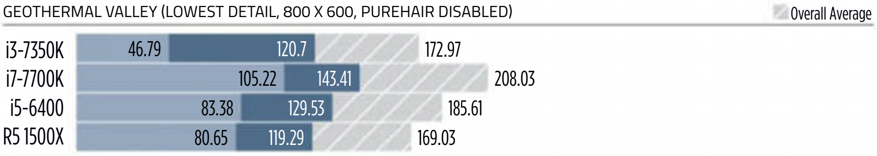
▲ **Fire Strike**



▲ **3D Mark offers a variety of tests designed for gaming machines, tablets, and VR**

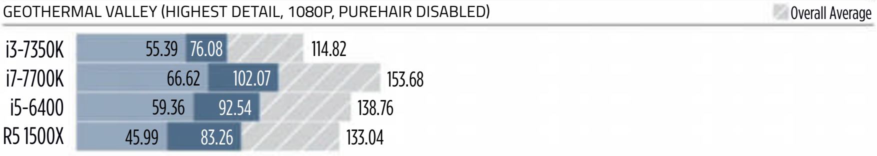
RISE OF THE TOMB RAIDER

GEOTHERMAL VALLEY (LOWEST DETAIL, 800 X 600, PUREHAIR DISABLED)



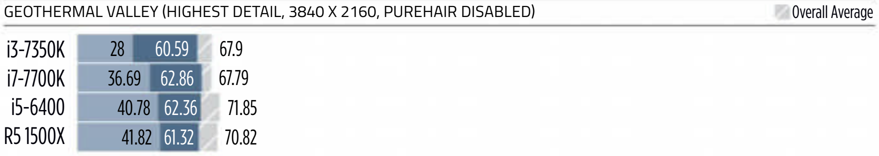
RISE OF THE TOMB RAIDER

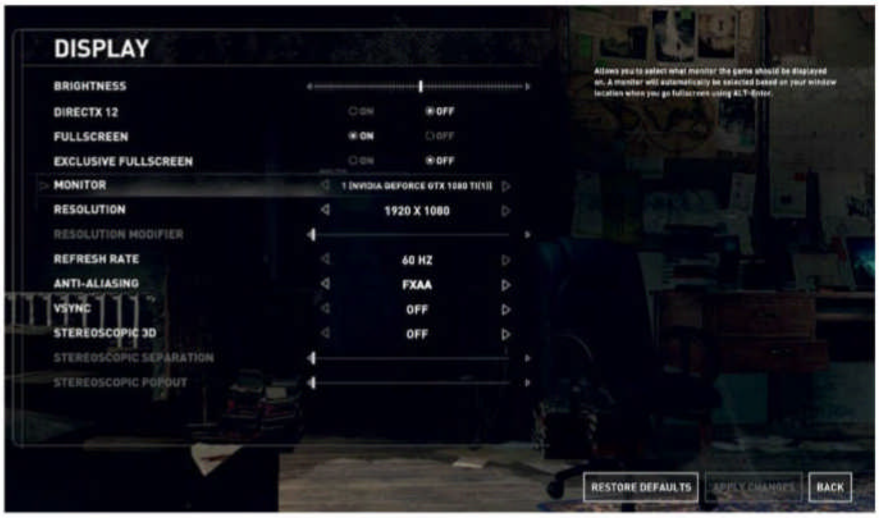
GEOTHERMAL VALLEY (HIGHEST DETAIL, 1080P, PUREHAIR DISABLED)



RISE OF THE TOMB RAIDER

GEOTHERMAL VALLEY (HIGHEST DETAIL, 3840 X 2160, PUREHAIR DISABLED)





DISPLAY

BRIGHTNESS

DIRECTX 12 ○ ON ● OFF

FULLSCREEN ● ON ○ OFF

EXCLUSIVE FULLSCREEN ○ ON ● OFF

MONITOR 1 (NVIDIA GEFORCE GTX 1080 TI(1))

RESOLUTION 1920 X 1080

RESOLUTION MODIFIER

REFRESH RATE 60 HZ

ANTI-ALIASING FXAA

VSYNC OFF

STEREOSCOPIC 3D OFF

STEREOSCOPIC SEPARATION

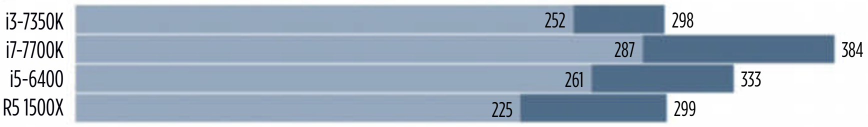
STEREOSCOPIC POPOUT

Allows you to select what monitor the game should be displayed on. A monitor will automatically be selected based on your window location when you go fullscreen using ALT-Enter.

▲ **With DirectX 12 support, Rise of the Tomb Raider is ideal for GPU testing**

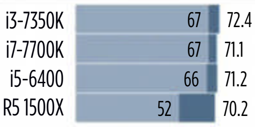
TOTAL WAR: WARHAMMER

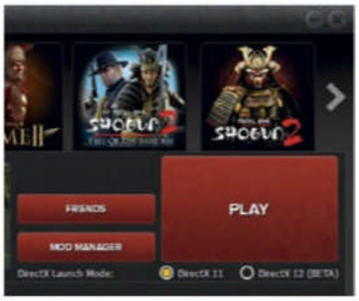
LOWEST DETAIL, 1024 X 768

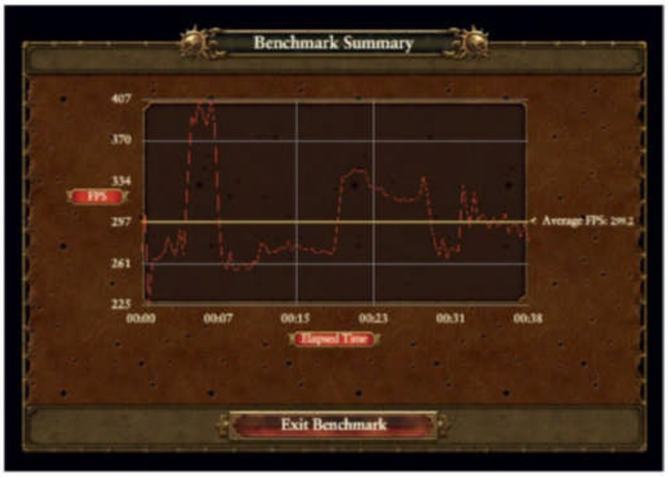


TOTAL WAR: WARHAMMER

LOWEST DETAIL, 1024 X 768

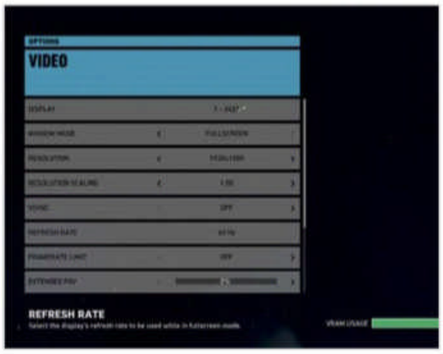


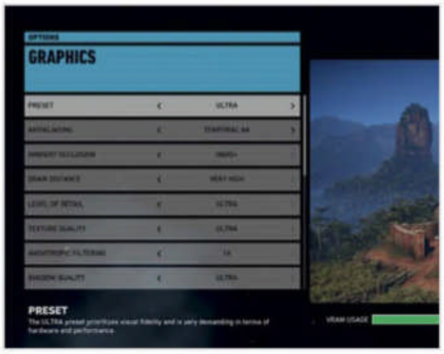

SHOGUN 2
SHOGUN 2
FRIENDS
PLAY
MOD MANAGER
DirectX Launch Mode:
DirectX 11
DirectX 12 (BETA)


Benchmark Summary
407
370
334
FPS
297
261
225
Average FPS: 299.2
00:00
00:07
00:15
00:23
00:31
00:38
Elapsed Time
Exit Benchmark

▶ With loads of AI doing its thing, Total War: Warhammer relies on your CPU way more than your GPU

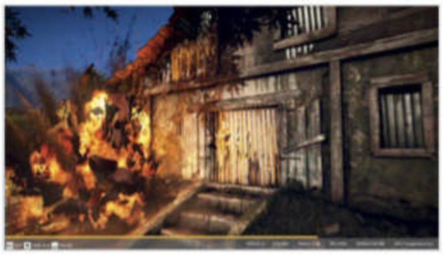
GHOST RECON: WILDLANDS

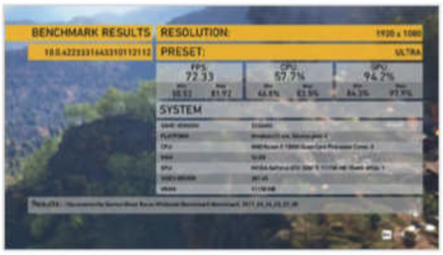

OPTIONS
VIDEO
REFRESH RATE
VRAM USAGE


OPTIONS
GRAPHICS
PRESET
VRAM USAGE

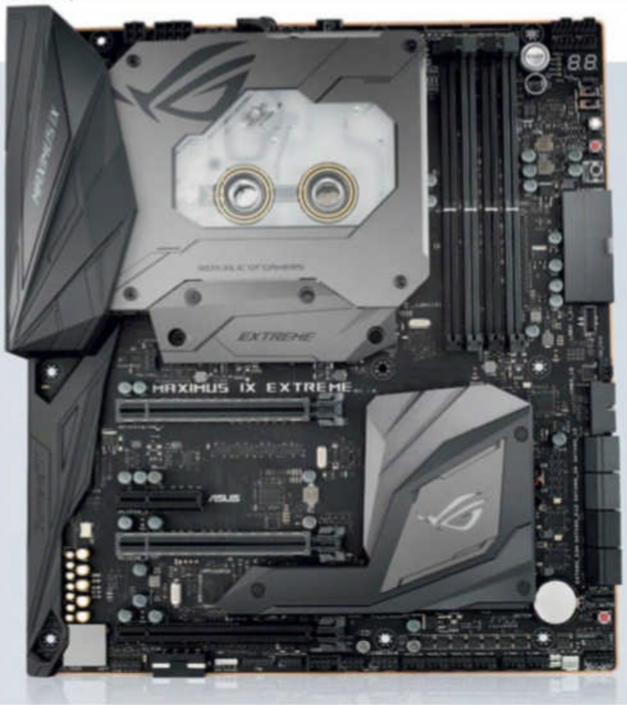
OPTIONS
GRAPHICS
MOTION BLUR
VRAM USAGE

▲ One of today's most demanding games Ghost Recon: Wildlands is a good test for CPUs and GPUs





BENCHMARK RESULTS
RESOLUTION: 1920 x 1080
PRESET: ULTRA
FPS 72.33
CPU 57.7%
GPU 94.2%
SYSTEM



EXTREME
MAXIMUS IX EXTREME

MOBO

Asus Maximus IX Extreme motherboard

One pool party we'd rather not attend

PRICE $929
www.asus.com.au

No, that price above is not a typo. This is indeed a motherboard that may as well be priced at a grand for all intents and purposes. Now, this might be hard to stomach for most PC PowerPlay readers, but it's not aimed at most of us – this is a product targeted at those with so much money that they don't mind blowing ten grand on a custom-built PC. So, what do you get for a board that costs around 2.5 times the price of a standard Z270 motherboard?

The key feature here is the integration of water cooling, with the inclusion of a huge monoblock to cover the CPU and surrounding VRMs. This ain't no cheap All-in-One type of water cooler – we're talking a dedicated water block that will need to be plugged into a separate radiator and pump; the example Asus sent us was from Bitspower. To buy a similar water block would cost around $200 or so, which does go some way to offsetting that extreme price point. There's also a monoblock for water-cooling your M.2 SSD, a handy feature seeing that these guys can throttle under sustained load.

As for the board itself, to be frank it's not that remarkable. It's of the ATX form factor; for a grand we really expected E-ATX. There are three full length PCIe x16 lanes, along with a single x1 lane. As it's a Z270 board, it can support SLI. Four memory slots support speeds of up to 4133MHz, which has to be a new record, provided you're willing to spend the $600 or so necessary on a memory kit capable of these speeds. Eight SATA 3 6Gbps slots are included, along with dual M.2 slots for high speed SSDs. There don't seem to be any extra PCIe lanes over the standard Z270 chipset, another missed opportunity at this price point.

A single USB 3.1 pass-through is delivered for front port access, along with twin USB 3.0 ports, while rear high speed port access is twin USB 3.1 /Thunderbolt 3 – one each of Type A and C. As for rear USB 3.0, there are six included. Obviously there's room for more USB ports if you decide to utilise the onboard USB headers. Integrated 802.11ac support is included alongside the Intel Ethernet. Finally, we have the audio solution, which uses Asus' unique take on Realtek's latest codec, which is called the S1220 HD codec.

> " we're talking a dedicated water block that will need to be plugged into a separate radiator and pump "

To be frank, we're really struggling to justify that price point. What we have here is a relatively standard premium board that should cost around $450, along with a $200 waterblock. To bundle the two together and charge nearly a grand seems like Asus is taking the, erm, water out of its customer base.

BENNETT RING PC

- Beautiful monoblock water cooler
- Wide range of I/O options
- Twin M.2

- Stupidly expensive
- No extra PCIe lanes

VERDICT:

To be frank, this seems to be more of a marketing gimmick than a solid value proposition from Asus.

6

MONITOR

Samsung CFG70 27" curved gaming monitor

Curves in all the right places

PRICE $749
samsung.com/au

The stand of the Samsung CFG70 is a thing of architectural beauty - a large hinged arm that allows for extremely fine control of viewing height and angle. While it looks great and performs well, it's also somewhat problematic - the arm is long and deep, so if you usually have your monitor up against a wall or partition, this forces the screen closer to your eyes than you might like. This could be to take advantage of the curve, but then again, maybe not. This is a problem that's kind of emblematic of the CFG70 as a whole. It's beautifully put together and looks great, but the design seems to have taken precedent over practicality in some aspects, making it a product that doesn't quite meet its target. The monitor itself is fast and bright and looks great while gaming, but at only 1920x1080, the sheer size of the monitor renders many fine details a little soft. This is especially noticeable outside of gaming. Text looks a little washed out due to the size of the pixels, lending a slightly hazy aspect to normal work. The monitor also comes in a cheaper 24" form factor. We haven't tested this but the size should make the monitor a better all-rounder.

Still, when it comes to gaming performance, the CFG70 is an excellent performer. The first gaming monitor to use quantum dot technology is very bright and shows excellent colour reproduction. The monitor supports AMDs FreeSync to negate tearing and performed well over a range of games from the fast-paced shooting action of Immortal Redneck to slower paced fare like Little Nightmares. It's a good gaming monitor, but whether or not you're willing to pay 1440p prices for a 1080p monitor is up to you. *DANIEL WILKS* PC

- Fast
- Bright
- Excellent gaming performance

- Very expensive for 1080p
- Too big for 1080p

VERDICT:

An excellent gaming monitor, but the asking price and hazy non-gaming performance make it somewhat questionable.

7

KEYBOARD

Logitech G413 Silver

Simply stunning

PRICE $129
logitech.com/en-au

As much as we liked the G810 Orion Spectrum and G610 keyboards, the new G413 is the best keyboard we've seen from Logitech in years. It combines everything we like in a keyboard - premium feeling mechanical keys, solid construction, a small footprint and a general lack of bells and whistles that do little outside of increase the price tag. The result is a great looking keyboard that is a joy to use.

The keyboard comes in two varieties - Silver and Carbon (a fancier word for black) - but aside from the colour of the thick aluminium faceplate and the backlighting (white in the case of Silver and red for Carbon), the keyboards are identical. This means they both feature the same lovely short throw Romer-G keys, function based media controls, a USB passthrough and a very reasonable price tag. Thanks to the Romer-G switches and aluminium face plate, the G413 feels like real premium keyboard. It's rock solid without a hint of flex or bounce. As a result it performs well for basic typing as well as frenzied gaming.

We really don't have any significant complaints about the G413. Sure, it would be nice to have a USB 3.0 passthrough rather than 2.0, but that's neither here nor there, and some dedicated media keys like the G610 would be nice but again they are not necessary. With a street price that sits at around the same level as the HyperX Alloy and Roccat Suora, the Logitech G413 is a brilliant, impeccably built and great feeling gaming keyboard. *DANIEL WILKS* PC

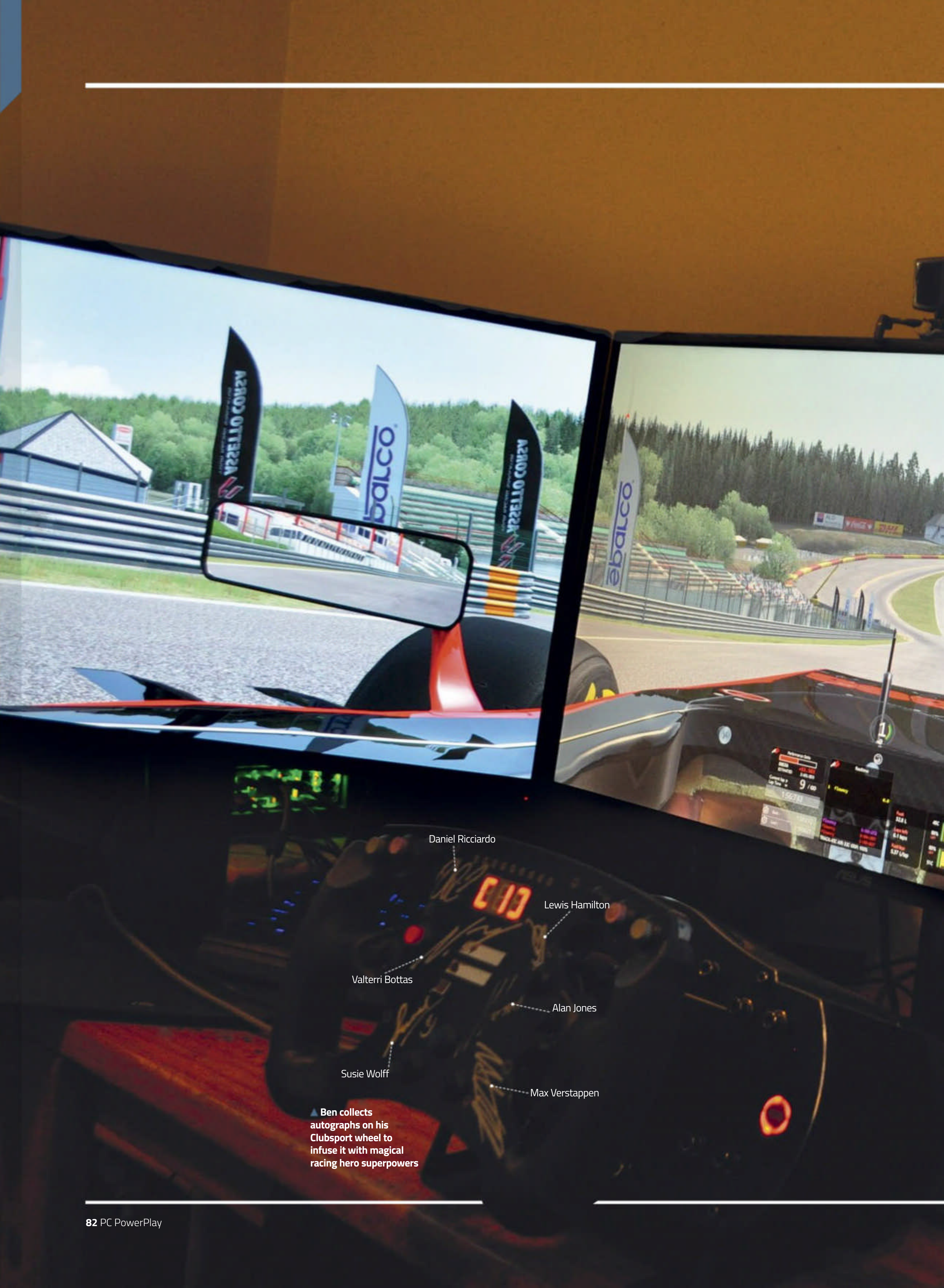
- Rock solid construction
- Romer-G keys
- Great price

- Limited lighting if you care about that

VERDICT:

An excellent, premium feeling gaming keyboard at a very reasonable price.

10


Daniel Ricciardo
Lewis Hamilton
Valterri Bottas
Alan Jones
Susie Wolff
Max Verstappen

▲ Ben collects autographs on his Clubsport wheel to infuse it with magical racing hero superpowers

TRIPLE SCREENING

In this new age of VR and crazy-wide curved single screens, **BEN MANSILL** is going triple screening.

I've wanted a triple screen gaming rig for a very long time. These days I play mostly sims – flying and driving – and by all accounts this is where a triple screen rig should shine, so for no other reason the time is now to get this project going.

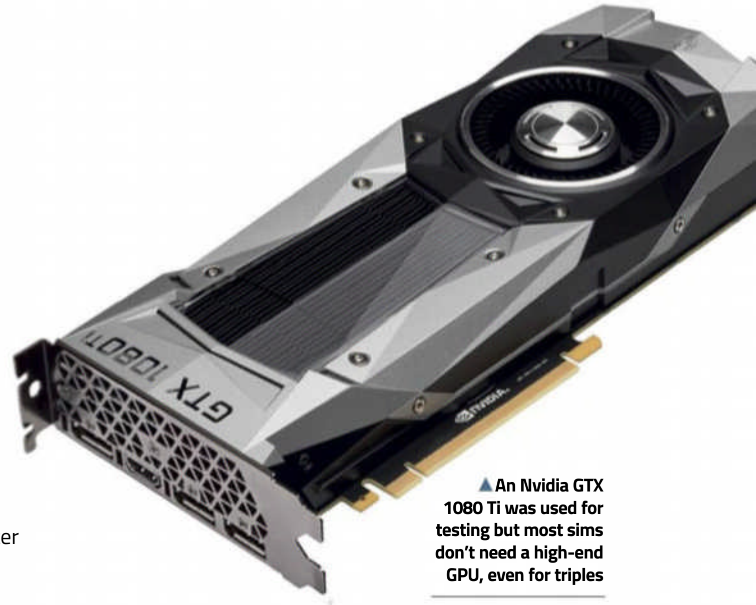
Now, with this being the age of VR and all, it's fair to question the sanity of investing in an expensive triple screen rig – which includes not only the cost of the screens, but the graphics card to run it all. VR is life changing, no doubt about it, but the current generation VR screens are too low resolution to be useful in some games. Yes, you're really there, but if you can't read how much fuel is left in your tank, or ammo remains for your guns, well, you're dead, aren't you? I also race in leagues with many races running an hour or more. That's too long in hyper-intense mode for VR, especially when it gets hot and uncomfortable.

I don't run any kind of cockpit, so the new setup will be on a desk. As such, it should also offer good wins for Windows desktop activities as well as, hopefully, many varieties of gaming in general. I'm coming from a six year old 30-inch Dell, which I love, and use it with TrackIR in sims.

The primary objective was to have the triples set just right so my real life head was where it should be, looking at the right angles of things, sizes of things and a field of view in front and to the sides so it all achieves 1:1 'being there' realism. This was not a quest for 'sticking my head in a bucket of graphics' eye candy, or having a super-wide meterage of screen spanning the desk. It's about feeling like I'm sitting in the car I'm driving, or plane I'm flying. There's maths and science involved in dialing all this in, and luckily others have done all the hard work so setting it up was easy and fun.

KITTING UP

Going triples is going to be expensive, but the reward is great.



▲An Nvidia GTX 1080 Ti was used for testing but most sims don't need a high-end GPU, even for triples

CHOOSING YOUR SCREENS

Overall what's going to drive screen choice will be the ultimate resolution you'll be running, the graphics card powering it all and how demanding the games you'll be playing are – in other words, is the PC horsepower going to match the heavy demands? But put all that aside for a moment. What you want more than anything is physical size. The larger, the better. It's not uncommon to use three TVs for this reason, plus the performance impact of three 1080 TVs is probably less than three monitors at a higher resolution.

Nevertheless, it's crispness plus size I'm chasing, so after considering everything available settled on three 27-inch 2560 x 1440 Asus ROG PG279Q screens. There were several factors driving this choice. First, these monitors have a very slim bezel, that's so important. I wanted a decent vertical resolution – 1080 or 1200 just doesn't cut it anymore, not by a long shot. Similarly, 2560 horizontally is a lot more useful than 1920. But this would mean a total resolution of 7680 x 1440, which is going to stress any graphics card. That brings us to a huge aspect in favour of these Asus PG279Q's – they are G-Sync capable. I would be running an Nvidia card so this became a critical factor to help achieve smooth gaming if I found myself playing games that no amount of tweaking could get close to being decently playable without G-Sync.

The Asus PG279Q's also have a very high 144Hz refresh rate, and I knew that even at 7680 x 1440, in many games I would be well over 60fps so I wanted to see that graphics headroom translate to smooth and high frames.

Lastly, and most importantly, the Asus PG279Q is an IPS panel. That allowed them to be used as side screens without losing out on colour richness and accuracy because of the viewing angle. This was probably the biggest surprise discovery of the whole project for me. I had considered using cheaper TN panels on the side but TN looks terrible unless you're perfectly front-on. On the side I would have lost a lot of richness and contrast, and the colours – to my centred eye – would have been very different on the side, compared to the centre.

While some other monitors checked some boxes, only the Asus PG279Q ticked them all.

GRAPHICS POWER

I'm fortunate, in that the main games I play and the driving motivator for going triples aren't particularly GPU demanding. For me that's primarily Assetto Corsa, which is more CPU-reliant than GPU, and War Thunder, which has a ridiculously well coded engine that looks a treat but can run well on almost anything. But a gaming rig needs to be versatile, and even though there's always the fall back option of running a particularly demanding game on just the centre screen, you still want the power to go for triple screen gaming whenever possible.

SLI is tempting, and may be the go later on, but so few games support SLI at launch, and many never do. So, for this stage of the experiment at least, that meant an Nvidia 1080 Ti. A key factor at play here is its 11GB of video RAM the 1080 Ti carries. At the 7680x1440 resolution I'd be running I don't want stutters because there's not enough memory for textures.

ASUS
IN SEARCH OF INCREDIBLE
THE CHOICE OF
CHAMPIONS
REPUBLIC OF
GAMERS
ASUS

▲The Asus PG279Q was an outstanding choice for triples thanks to G-Sync, wide viewing angles because it's an IPS panel, plus a very thin bezel

> the goal is to replicate a true 1:1 position of where your head in the vehicle really would be

GETTING IT DONE

One does not simply plonk three screens on one's desk and be done with it.

FIELD OF VIEW

It's common to run a high FOV in games, and that's especially true of racing sims on a single screen. We do that to give ourselves a greater field of view to aid situational awareness, with the downside that what you see is a distortion of what reality should be (sometimes dramatically if running extreme FOV in the order of 50-60 degrees or more). With the immense peripheral real estate triple screens offer we can bring the FOV back to what's realistic. More than any other factor, a correct FOV centres you properly in the vehicle and gives us the 'really there' immersion we're chasing. Calculating it is easy, and is part of the edracing calculator linked below, so moving on for now.

EYEBALL TO SCREEN DISTANCE

Apart from the screen's physical size, this is the only measurement you'll need to know to input into the calculator I'll get to in a moment. As with FOV, we need to know this to help get your virtual position in the vehicle exactly right. With the centre monitor positioned where you want it, sit back as you would when gaming and tape measure the distance from eyeballs to the screen in a straight level line.

Now, I've seen triple screen setups – and single screen rigs too – where the monitor/s are pushed back far away from where the gamer would sit. That's crazy. Don't do that. It defeats the whole purpose of getting maximum immersion! Have them as close as possible to you.
The calculator we'll be using will allow angle and FOV adjustments so your view is spot on. I have the centre screen just touching where I have my Clubsport wheel base – as close as can be.

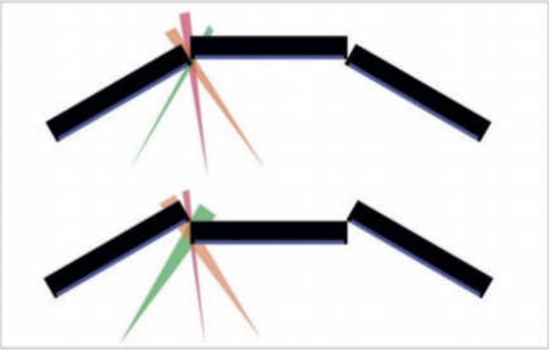
SIDE SCREEN ANGLES

This is super important, and you'll need maths. But luckily the internet has that sorted. Now, you can't simply chuck the side screens up and set them at whatever angle takes your fancy. Because the goal is to replicate a true 1:1 position of where your head in the vehicle really would be, the side screen angles are critical to accurately achieving this, and it's directly related to your FOV (see above).

Head to *www.edracing.com/edr/FOV.php*. This app was developed for iRacing, but is game-agnostic and it gives us exactly what we need so this is what we're using. Simply input your viewing distance and centre monitor width and it generates the proper FOV and side screen angle. In my case it was a game FOV of 32 degrees and a screen side angle of 47.5 degrees. Without moving the centre screen (otherwise it will throw off your viewing distance numbers), find your old school protractor or borrow your kid's one, and put it to good use for the first time in its life. Once in your game, set the FOV to whatever the calculator told you to, and you're almost there.

SIDE SCREEN OVERLAP

You can effectively reduce the amount of visible bezel by overlapping the centre screen over the side screens, as shown in the illustration.



MARK WILLIAMS

◀**How screen overlap can be used to minimise visible bezel. Your centred viewpoint (orange) sees the thinnest bezel if the centre screen is at the rear, though with a thin bezel display like the Asus PG279Q you can get away with having all three flush, with no overlap for a more realistic view**

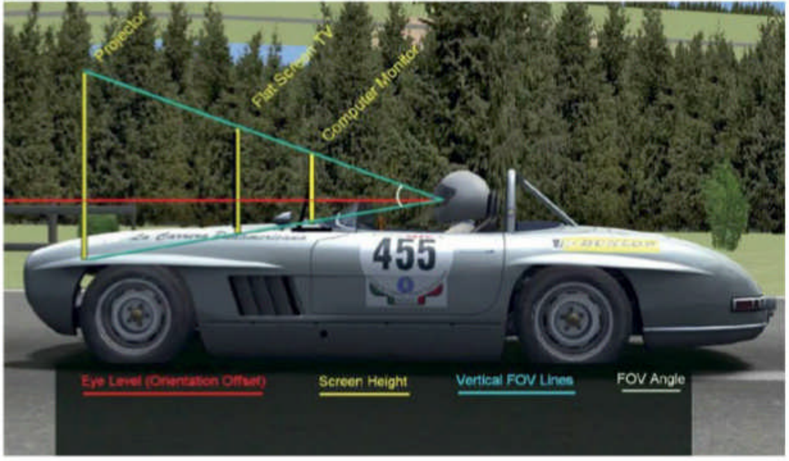
The trick is to sit back in your normal gaming position and move the edge of the side screens behind the centre screen bit by bit until you can't see the side screen's bezels anymore. Now, only the centre screen bezel is visible, with the side screen bezels obscured. Always re-check your screen angles after doing this. Alternatively you could do the same but have the side screens overlap in front of the centre screen. Because the side screens are at an angle you can achieve a tiny bit less visible bezel overall thanks to narrower face the side screen bezels present at an angle. There's no set school of thought on whether the centre screen should be in front, or behind. I prefer the centre to be ahead of the sides, because that makes it the closest screen and I like that. Perusing photos of various triple screen rigs on line, you'll see that both ways are commonly used.

BEZEL COMPENSATION

Whether or not you have placed your side screens so that they overlap the centre, there's still going to be some bezel showing, that's just unavoidable. Even if it's just a few mm you still need to compensate for the bezel. If you don't

ZEOSPANTERA

▼**To achieve 1:1 realism consider the distance from your eyes to the screen, the screen size, and that your eyes are at the same level as the center of the screen**



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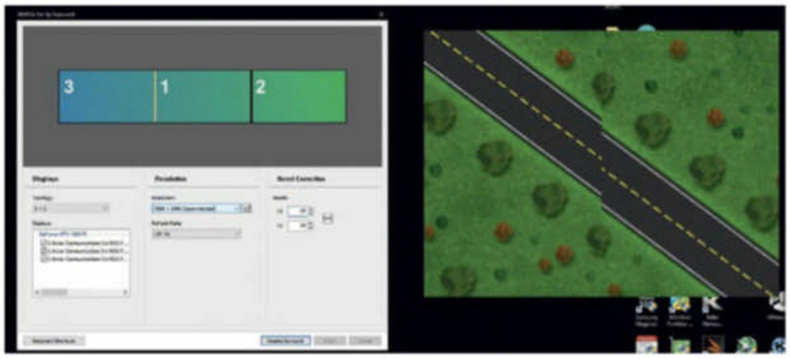
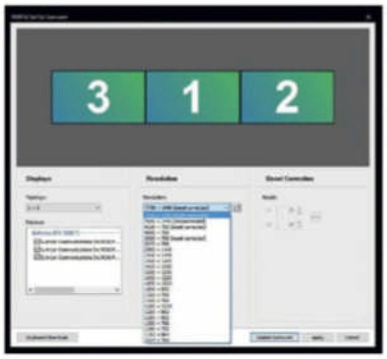




▲ **ABOVE: Bezel correction using the Nvidia control panel. AMD has a similar tool.**

the PC will draw the scene as if there were no bezel present at all, so as the centre image ends on the edges, and the side screens resume drawing the scene, the bezel area represents a gap that shouldn't be present in the scene. That gap can be a real killer. If you're in a cockpit game the struts and dash will be visibly unaligned, in a FPS the building edge will jump as it crosses to the side screens resulting in a nasty looking lightning bolt effect. You don't want that! It looks crappy and can impact your immersion, and to a degree, your effectiveness in the game as things aren't where they should be.

Fortunately it can be fixed. Unfortunately it may not be straightforward. The simplest method is to use the included bezel compensation tool present in both the AMD and Nvidia control panels.

In practice it's simple. A sample image (Nvidia shown) is overlaid and you just keep adding in compensation for left and right until they are aligned. That will do it for Windows desktop general use, and in theory you're set for in-game use as well. What is happening as you make these adjustments, and then locking them in, is that Windows is resizing its overall resolution and producing a custom res that becomes Windows default. In my case, it changed the resolution from 7680 x 1440 to 7738 x 1440. Once this is done go in-game, and in graphics options you should see that new resolution in the list of what's available – select it, and you're good to go.

If it doesn't appear – and it doesn't always as some games would only list the original native screen resolution – your only option is to hack. Find the .ini or .cgf or whatever your game has for settings (assuming it's available), and manually change the resolution to your new one.

Ideally the game itself supports bezel compensation. Assetto Corsa and iRacing both do, but this is relatively rare. If your game does support bezel compensation then use it. It's far more accurate to use an in-game tool to position things just right.

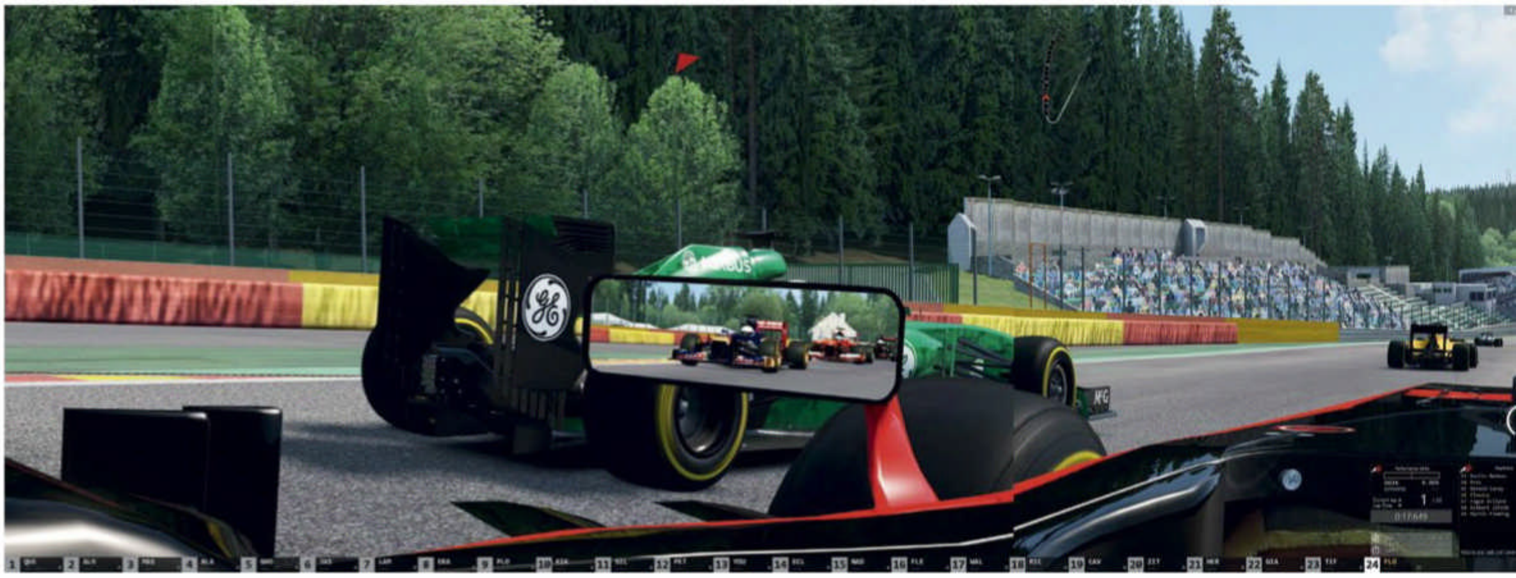
SEAT HEIGHT

This is the last thing to do, and in some ways the most important. You absolutely must be seated so your eyes are pointing at the centre of the screen. Any higher or lower and the perspective is thrown off and you'll see that easily in the form of the side screens showing things at different angles relative to the center screen. Take your virtual car out, stop it in the middle of a track where there are side rails running alongside the track. If you are too high or too low in the seat the rails won't run in a clean, straight line across all three screens. Even a couple of cm height change makes it or breaks it. Of course, it's a lot easier to change your seat height than find three equally sized things to raise the monitors with. On my desk the side screens sit precariously close to the edge so I don't want to risk putting them on something potentially unstable. A VESA arm mounting rig is another option, it offers the most flexibility but is also another $200 - $300 towards the project.

WAS IT WORTH IT?

There's a reason why this setup is so popular with racing sims, and little else.

Oh gosh yes. I have wanted a triple screen rig as long as I can remember and it did not disappoint. The big victory is Assetto Corsa, as well as other driving games. Having experimented with other game types I think it's safe to say that unless you're pretty hardcore into driving games then triples are hard to justify. There are too many compromises. Here's what I found.



DRIVING

Absolutely incredible. There's a lovely increase in the sense of speed that comes from having stuff whizz by on the side screens in your peripheral vision – yet because triples allow a much lower FOV, you actually feel like you're moving more slowly when looking at the center screen, which in turn improves your accuracy. This is because a higher FOV causes a false sense of high speed because the perspective is warped. With triples, if you got the calculations right, you're seated in the right spot with everything the right size so it *becomes* driving a car, and with all the experience you have at that helping you intuitively, versus controlling something not quite right in a narrow window in front of you.

To be able to look into a turn is critical for good racing. I always relied upon TrackIR, and I'm very used to it, but it's just nicer and more natural to be seated in a virtual cockpit that surrounds you. A big win for triples over TrackIR is when other cars are alongside. With TrackIR you'd look to the side and momentarily lose track of where you're pointing, potentially dangerously. Triples let you take it all in via your peripheral vision. So you're safer on track and can make riskier passing moves stick.

FLYING

This was a mixed bag. For starters you absolutely must use TrackIR when flying – triples or not. Don't argue. Everyone who plays flight sims knows this to be true. But… while the expanded side view added some nice peripheral candy, the truth is that in a flight sim you are moving your head constantly as you eyeball a bogie within a very narrow cone of view, and I found the lack of vertical screen height relative to the huge horizontal area an impediment. I could easily look to the side, but looking up – which is so common in a dogfight – was constricting by comparison. Honestly, it was better using my 30-inch Dell because I could see in equal amounts vertically as well as horizontally and it's all about having a single point of focus in flying that you constantly stayed glued to via TrackIR – there's nothing to be gained from having expanded side vision because with TrackIR you look there anyway, and unlike driving games, huge objects (other cars) just aren't there, instead there are just tiny dots (other planes or targets) so the extra side view offered no gain.

FPS

First person gaming worked beautifully. In anything but the paciest online shooter, the ability to take in a wider surrounding was magical. The feeling of being there was more powerful than with single screen gaming. But apart from sightseeing there's no practical gameplay advantage. When the shooting starts you're hyper-focused on a small central area and your peripheral vision ceases to be – so no gain there. But for standing atop a hill in Fallout 4 taking it all in, or surveying a new valley in Far Cry Primal, or getting cranky at your slow team mate alongside you as you slog through a forest in Arma III it's magic.

But, to be expected, FPS games typically demand more of the GPU, so in most games I tested it was necessary to lower the graphics detail a bit to achieve a playable frame rate.

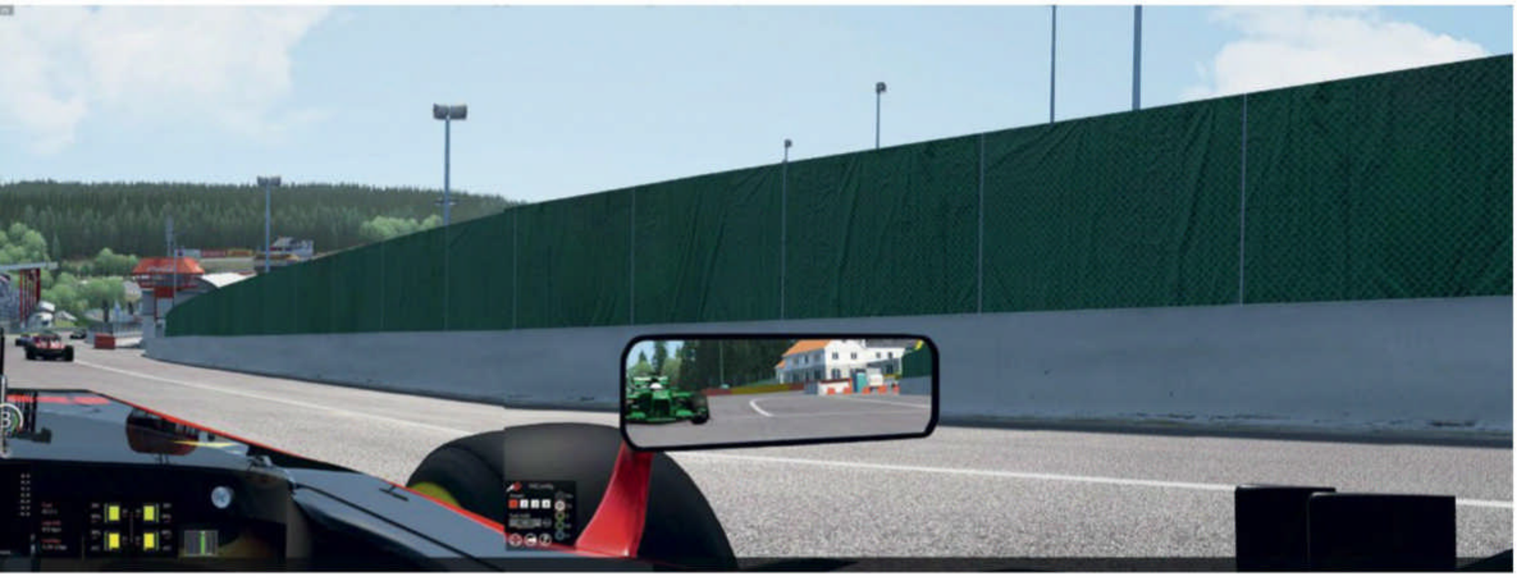
CONCLUSION

If your objective is a totally immersive experience and you aren't bothered by the current low HMD resolution, VR is better. But for me, for some games at least, VR res is too low to read critically important on screen info. Sim racing competitively – especially on a hot summer night like the ones we suffered through earlier this year – also means sweating inside a VR HMD that you can't take a break from because the race is underway. I'm serious, it's a big factor!

If you only seek the massive width then some crazy aspect ratio single screens are on the horizon that might offer an alternative. Samsung, among others, has a display coming using a new 3840 x 1200 panel. It's curved, too, so you're looking at two-thirds the width of a typical triple rig and no bezels. But the 1800R curve won't be enough give you the precise 1:1 position in the cockpit that's so important and can only be achieved with properly positioned triples.

Yes, life is full of compromises and difficult decisions. Triple screen gaming imposes many of these, but ultimately I only wish I'd done this years ago. I come home from work, look at those three beauties on my desk and it makes me want to game. It's a very exciting thing to have and it takes gaming to a new level. PC

▼Assetto Corsa, heading into Eau Rouge. The 'tearing' in front of each mirror is due to the game's bezel correction mucking with the screenshot, on-screen it looks perfect



HOTWARE 262

with Terrence Jarrad

01

01 Sony E-Paper Tablet

$1000 ▪ Sony

www.sony.com

The DPT-RP1 just rolls off the tongue doesn't it? It's the latest in Sony's "Digital Paper" line which displays documents and allows you to take notes on them with a stylus... style... pen. It's Sony's attempt to remove physical paper dependencies in business.

POWERED UP: 13.3 inches of display at a resolution of 1650x2200, giving you all the screen/document/note-taking real-estate you need.

PLAYED OUT: So the documents this works with? PDFs. Yep. Just PDFs.

02

02 Duo AI Mirror

$530 ▪ Duo

duo.computer

Voice assistants are getting smarter, or at least, better at how they filter and disseminate information; Amazon's Alexa, Apple's Siri, Microsoft's Cortana, and Google's Assistant are all working to push the boundaries of our expectations for AI assistant interactions. None of them however, are as well dressed as Duo's Albert.

POWERED UP: Looking just like a mirror, this computer hidden behind a 27" display is sleek. It displays its HomeOS interface only when it needs to and features 5-point multi-touch as well as voice control, practically begging for integration into a smart home.

PLAYED OUT: Have fun cleaning finger smudges off your mirror.

03

03 Quip

$70 ▪ Quip

www.getquip.com

We all learned that we need to change worn toothbrushes when we were kids, but how often do you actually DO so?

POWERED UP: A svelte electric toothbrush with a subscription program to replace brushes every three months. It also ships to Australia for a minimum fee and with no shipping charge on the replacement packs! Comes in a range of colours and runs on a regular AAA battery that should last three months.

PLAYED OUT: Wanted to say something witty here, but we were out of quips.

04

04 River Mobile Power Station

$750 ▪ River

bit.ly/2oZegOz

We're all about Hotware that prepares you for the zombocalypse, and given so much of our lives now relies on power, it seems smart to have some available long term after societal collapse.

POWERED UP: 500W of juice (that holds for a year!) in a portable package capable of charging up to 11 devices as once, and unlike a generator, is completely silent, so won't attract hordes of the undead.

PLAYED OUT: Dust/Water resistant carry case costs extra (about $80), portable 50W solar charger costs extra (about $320), both of which you'll want, natch.

05

05 Pavlok

$260 ▪ Pavlok

buy.pavlok.com

Got some bad habits that need breaking? Smoking? Biting nails? Arguing with people on the internet? The Pavlok is here to destroy them (the habits, not the people you argue with).

POWERED UP: It's like a FitBit, but instead of monitoring your health, the Pavlok works out when you're doing something you want to stop, and administers an electric shock to train you out of it. You can even link it with your FitBit through If This Then That (*www.ifttt.com*) to train yourself into good habits.

PLAYED OUT: We don't agree that a 350 volt electric jolt is the best way to break or form a habit. Unless you're still arguing with people on the internet, in which case you should probably wear about 15 of these things.

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TP-Link VR600
$179 tp-link.com
Not the fastest, but it's stable, well priced and feature packed. ADSL modem built in

Synology Router RT1900ac
$199 synology.com
No built in ADSL modem, but it's fast and has the best interface around

PREMIUM

NETGEAR R8000 Nighthawk X6 Tri-Band WiFi Router
$300 netgear.com.au
Formerly our pick for the Beast, this router is more than powerful and fast enough for all your gaming needs

LAPTOPS

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BUDGET

Gigabyte P55W v5
$2099 gigabyte.com.au
If you want real gaming performance in a laptop, $2k is where it starts

PREMIUM

Metabox Prime-X
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Intel Core i5 7500 w/ stock cooler
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intel.com

MOBO
ASRock Z270M-ITX/AC Motherboard
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asrock.com.au

GPU
Asus DUAL-RX480-4G
$338
asus.com.au

MEMORY
16GB DDR4 Corsair Vengeance LPX Low Profile **$185**
corsair.com/en-au

STORAGE
Samsung SSD M.2 2280 NVMe 250G 960 EVO + 2TB HDD (any)
$178 + $50 samsung.com/au

CASE
Fractal Design Define S Nano
$115
fractal-design.com

PSU
SilverStone SFX Gold 500W SX500-LG
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Silverstone.com

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gigabyte.com.au

MEMORY
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STORAGE
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CASE
Corsair Carbide SPEC-02 Mid Tower Gaming Case
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PSU
SilverStone Strider Essential 500W ST50F-ESB **$55**
Silverstone.com

SOUND
Cougar Immersa
$59
cougargaming.com

DISPLAY
AOC e2450Swh
$158
aocmonitorap.com/anz

KEYBOARD
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tesorotec.com

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rapoo.com

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No big changes this month aside from a new videocard in The Beast - the mighty mouthful that is the Aorus Geforce GTX 1080 Ti Xtreme Edition 11G, and the wonderful Logitech G413 for the Performance machine.

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samsung.com/au

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corsair.com/en-au

PSU
Be Quiet! Dark Power Pro 11 850W Power Supply
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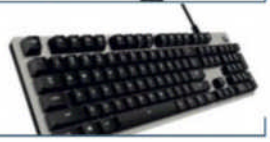
bequiet.com

SOUND
Sennheiser PC 373D
$329
en-au.sennheiser.com

DISPLAY
Acer Predator XB271HU
$979
acerstore.com.au

KEYBOARD
Logitech G413 Silver
$129
www.logitech.com/en-au



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$1229
gigabyte.com.au

MEMORY
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corsair.com/en-au

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samsung.com/au

CASE
InWin H-Frame 2.0
$1699
inwin-style.com

PSU
Corsair RM1000i Special Edition
$205
corsair.com/en-au

SOUND
Astro A50
$469
www.astrogaming.com

DISPLAY
Asus ROG Swift PG27AQ
$1349
asus.com.au

KEYBOARD
Corsair K95 Platinum RGB
$349
corsair.com/en-au/

MOUSE
Razer Deathadder Elite
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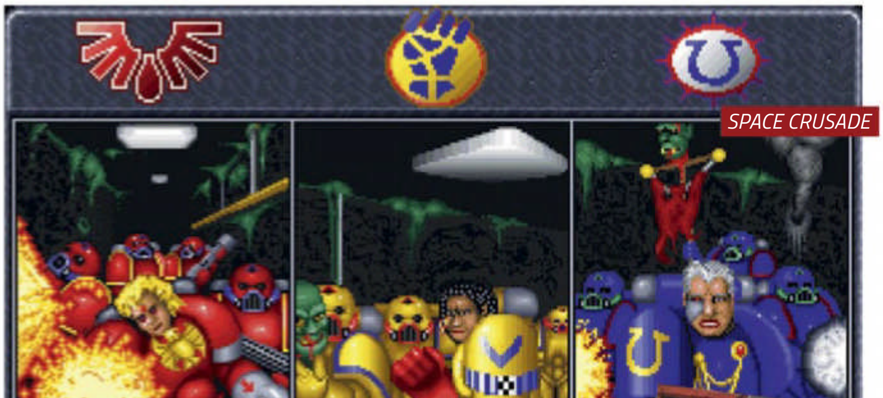
MA/PCD262

WAAAAGH Is Hell

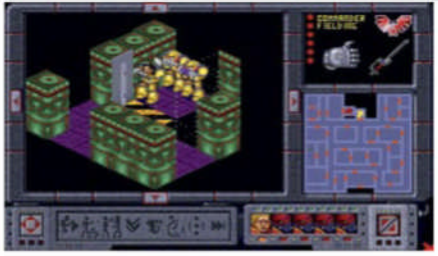
A meticulously detailed sci-fi universe full of hundreds of pre-designed units, weapons, structures and more, with a dedicated fan-base than lives and breathes the fiction? One lucky publisher should have made a mint off this IP. And yet, the history of videogame versions of Warhammer 40,000 are like the history of that universe itself: full of chaos, confusion, and the occasional burning of an entire world.

34 Warhammer 40K titles, mostly on PC, but some iOS and Android apps, and even an ill-fated Nokia N-Gage excursion

DEVELOPER So, so many, but notable alums include Relic, SSI, Gremlin, Sega, THQ and Electronic Arts.
RELEASED An average of 1.4 Warhammer 40K games (or expansions) have been released per year, since 1992.
NUTSHELL Most 40K games are turn-based strategy, while RTS is dominated by Dawn of War. But there are also shooters, adventure-RPGs, tactical shooters and action-RPGs. Many, many developers have tried to capture the essence of Warhammer 40,000. And so few have made a lasting mark.



SPACE CRUSADE



▶ Funny, we don't recall reading about the Great Primary Colour War in the lore.

WARHAMMER
40,000

The business of licensing an IP to make a videogame is complicated, and in this magazine's opinion, works best when a single publisher gets exclusive rights. Even better, if the owner of the IP can spin off some kind of associated developer, then the results can be truly spectacular. We're not saying EVERY Star Wars game ever made is awesome, but LucasArts has done some incredible work. Good enough, in fact, for videogame content to flow back into the canon of Star Wars at large.

Of course, Games Workshop is no Lucasfilm. But its Warhammer Fantasy Battle and Warhammer 40,000 collectable miniatures games are played, loved, and obsessed-over by millions.

Warhammer 40,000 was created as a spin-off of the high fantasy Warhammer, when designer Rick Priestly was simply told to come up with sci-fi versions of the usual fantasy tropes. Pretty much everything in 40K can be mapped to a fantasy equivalent (the Tau are functionally wood-elves, kay?), and it's pretty obvious looking back at the first edition that the whole thing was cooked up in some British shed over a couple of weekends and a lot of beer.

The point being that the creation of Warhammer 40,000 in the first place wasn't exactly controlled, or planned, or managed in any real sense. Seven editions later and the game is well defined, sure, but in the early days, Games Workshop pretty much just threw stuff at 40K to see what would stick, and what the fans would buy.

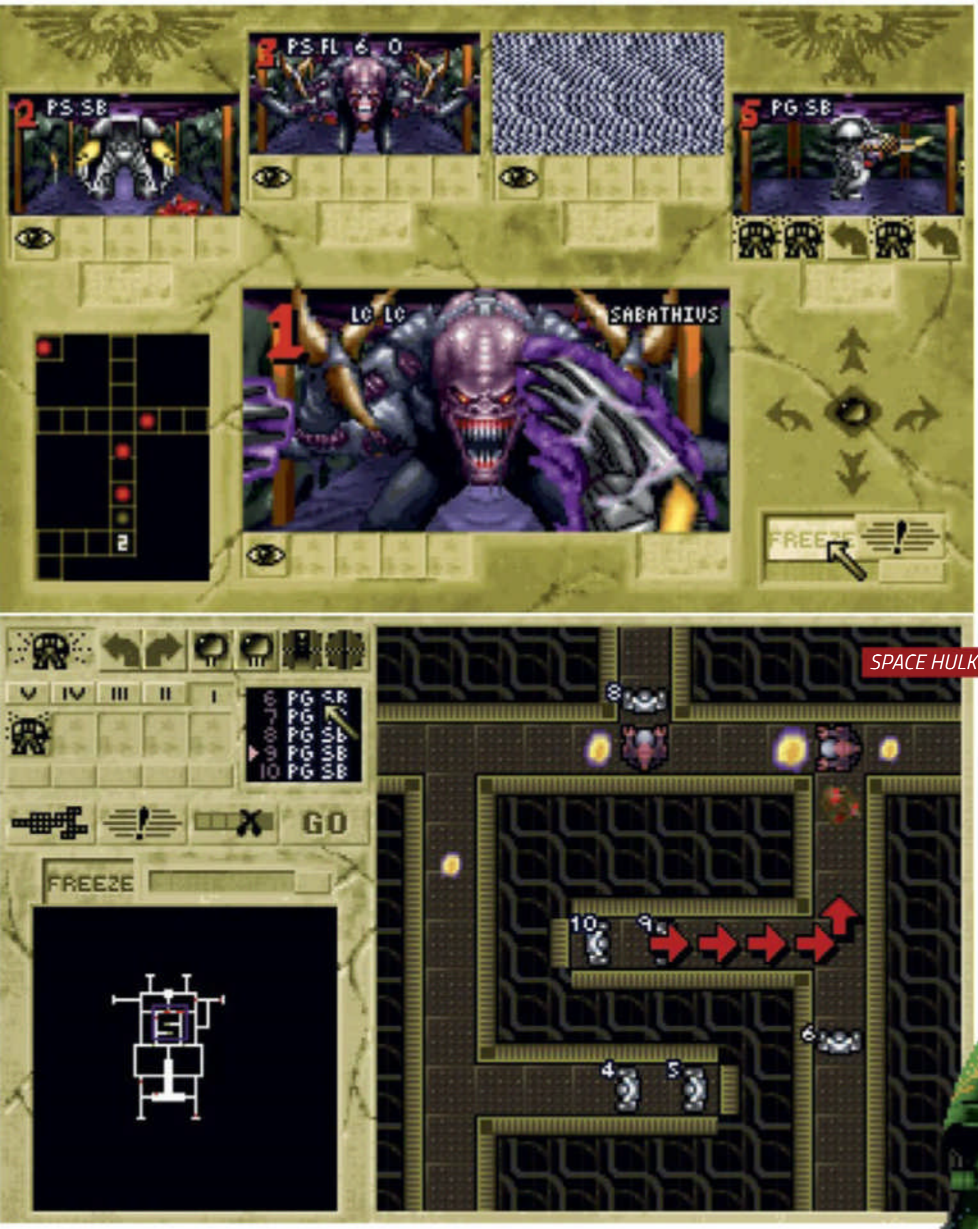
> the whole thing was cooked up in some British shed over a lot of beer

Usually, a videogame that licenses an IP picks something that's well-established, something that is already huge as a movie or TV show or whatever, and goes from there. And sure, by the time Relic got to Dawn of War, 40K was huge, and making an RTS in this universe made good sense.

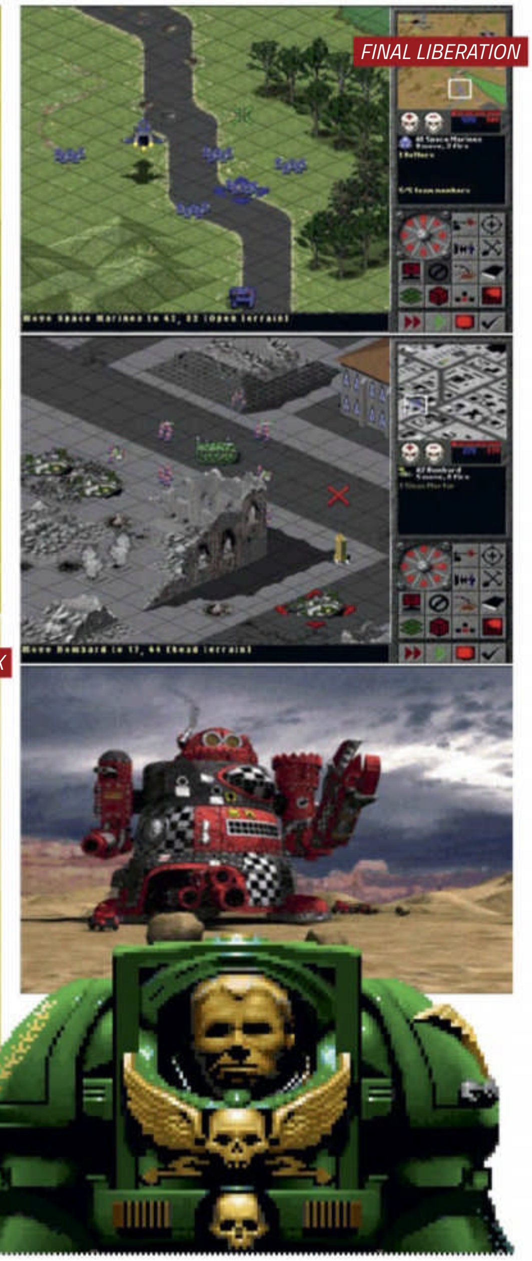
But the first 40K videogame, a turn-based tactical thing from Gremlin called Space Crusade, came out in 1992. That's just five years after the first edition of 40K, Rogue Trader, was published. And a year BEFORE the second edition.

The first three 40K videogames were all conversions of single-box boardgames, rather than encompassing the wider 40K universe (which was still fairly unevolved at that point anyway). Space Hulk (1993, EA) maintains a place of honour in many PC gamer's Mental 3.5-Inch Floppy Disk Flippy Box of Memories, because despite its basic graphics and turn-based structure, it captured the tense atmosphere of leading a team of Terminators through the cramped corridors of some terrible hulk, where getting torn apart by Genestealers (the Tyranids didn't exist back then) was only a keystroke away.

In the late 1990s, Strategic Simulations Inc - you might remember them as SSI - took up the totally-not-Christian-in-a-40K-context cross. Final Liberation gets named-checked in our DOW3 review as a rare example of an Epic-scale turn-based tactical game, with teeny-tiny



SPACE HULK



FINAL LIBERATION

THE GREATEST TRICK THE DEVIL EVER PULLED

Perhaps there's a very obvious reason why Warhammer 40,000 games have never been super-huge (even DOW is kinda niche, really). Maybe it's because way, way back in 1998, the definitive Warhammer 40,000 RTS was released, and has eclipsed everything since. It wasn't an OFFICIAL licensed title, mind. It was off-brand. Way off-brand. You might have heard of it: it's called StarCraft.

Space Marines with hilariously-enormous circular pauldrons? An inscrutable Eldar-I-mean-older race whose homeworld has been destroyed by a great cataclysm? A biological terror, controlled by a central mind, sweeping across the galaxy with fang and claw? No, that's not StarCraft, that's Warhammer 40,000. Or maybe it's StarCraft. Only your copyright lawyer knows for sure!

How did Blizzard get away with it? Rumours abound, from secret lawsuits (unlikely) to abandoned IP deals (who knows).

We shudder to imagine what Games Workshop thinks about the whole thing. As a GBP100-million-a-year company, GW isn't small. But StarCraft and its sequel are worth billions.

It was probably all orchestrated by the Ruinous Powers. This is just the kind of schtick they'd think was funny.

Space Marines and multi-storey Titans on the same battlefield. It had nifty FMV cutscenes, but ultimately relied too much on simply aping the mechanics of the tabletop system, right down to random "dice rolls" affecting outcomes.

Chaos Gate and Rites of War rounded out the millennium with more turn-based tactics, and zoomed the scale back in to the Space Marine squad-level, where most tabletop gamers play. Both were solid strategy games, but (and this is a common theme) could have swapped the 40K graphics for anything else and still played the same.

In 2003, THQ released one of PC PowerPlay's favourite terrible games - Warhammer 40,000: Fire Warrior. Eschewing the undeniable awesomeness of the Space Marines for the relatively new (launched 2001) Tau, Fire Warrior was just an awful FPS with bad design. Worse, if you weren't into 40K enough to know what the Tau are, it barely even looked like 40K game. Alternate box-art showing a green Space Marine probably confused some players... since you play as a Tau. A few Space Marines do pop up during the story, though. Thanks THQ!

So up to this point, Warhammer 40,000 videogames were minor, niche titles. That all changed in 2004, when Relic released the first Dawn of War. Running on a heavily-modified version of the developer's unfortunately-named SPOOGE engine, which had been created for Impossible Creatures, DOW looked good, played well, and filled out the 40K roster with expansions until pretty much every major army was represented (and you'd spent $300).

Dawn of War gave the world's videogame publishers a newfound confidence in Games Workshop's IP. So began a "golden" age of constant Warhammer releases.

Proof of the bubble: there was even a turn-based strategy title for the Nokia N-Gage called Glory in Death. Which turned out to be a surprisingly apt name for the platform... except for the glory part, that is.

After 2011, it becomes fairly pointless trying to identify any sort of pattern or trend in what kinds of videogames would license 40K. Twin-stick shooter? That'd be THQ's Kill Team from 2011. Relic getting distracted after Dawn of War II and doing a hybrid third person melee-shooter and making it their first console title? That's 2011's Space Marine. A reissue of Space Hulk for iOS? That was 2013 by some mob called Full Control.

CHAOS GATE

RITES OF WAR

FIRE WRRIOR

> running on a version of the unfortunately-named SPOOGE engine, DOW looked good

DAWN OF WAR

SPACEWOLVES 55
DARK ANGELS 35

GLORY IN DEATH

VANGUARD VETERAN
10,650
Advance toward the Kroozer's Primary Engine-chamber.

KILL TEAM

SPACE MARINE

DAWN OF WAR II

DEATHWING

Terrible, terrible "free to play" squad-based strategy card game app? Space Wolf, by HeroCraft (listed here so you can avoid it.)

And finally, just in 2017 alone, we have Space Hulk: Deathwing (David liked it), an "open-world sandbox action" thing called Inquisitor: Martyr, Dawn of War III, and yes, even a humble old-school turn-based strategy romp called Sanctus Reach... which on the one hand seems to be the most authentic to the tabletop version of them all, but on the other, yet again seems to be a case of "hey we have this turn-based strategy game engine, we should put 40K graphics on top of it!" Hey, it's a 25-year-old tradition. Why stop now?

So what do we take from all this? That there are many 40K games but only some of them are worth playing? That 40K games are slowly getting better over time? That the existence of a 40K game on the N-Gage proves the inescapable ubiquity of Warhammer?

Whatever your personal interest in or attitude to this idiosyncratic IP from Old Blighty, one thing at least seems clear: in the grim darkness of the far future, there will always be Warhammer 40,000 games. *ANTHONY FORDHAM*

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